

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
ARGENTINA						
Conarco Alambres y Soldaduras S.A.						
Conarco 10	ABS	2	All	dcep	2.5 - 5.0 mm	BUENOS AIRES
Conarco 10	ABS	2	All	dcep	2.5 - 5.0 mm	BUENOS AIRES
Conarco 11 AC	ABS	2	All, Fillet	ac / dcep	2.5 - 5.0 mm	BUENOS AIRES
Conarco 18	ABS	3Y H5	All	dcep	3.25 - 5.0 mm	BUENOS AIRES
Conarco 18 E	ABS	3	All	dcep	3.25 - 5.0 mm	BUENOS AIRES
Conarco 24	ABS	2	F, H	ac / dcen	2.5 - 5.0 mm	BUENOS AIRES
OK 22.45 PC	ABS	2	All	dcep	2.5 - 5.0 mm	BUENOS AIRES
OK 48.04 CS	ABS	3	All	dcep	2.5 - 4.0 mm	BUENOS AIRES

Electrodos Sideral S.A.

Sideral 10	ABS	2	All	dcep	4.0 mm	BUENOS AIRES
Sideral 18	ABS	3Y H10	All	dcep	4.0 mm	BUENOS AIRES

AUSTRALIA

BOC Limited

Smootharc 12	ABS	2	All, V-down	ac / dcep / dcen	2.0 - 5.0 mm	SYDNEY
Smootharc 16	ABS	4YQ420 H5	All	ac / dcep / dcen	2.5 - 5.0 mm	SYDNEY
Smootharc 18	ABS	3Y	All	dcep	1.6 - 6.0 mm	SYDNEY
Smootharc 24	ABS	2	F, H	ac / dcep / dcen	3.2 - 5.0 mm	SYDNEY
Smootharc S 316L	Manufacturer's Spec*		All	ac / dcep	1.6 - 5.0 mm	SYDNEY

*Manufacturer's guaranteed values: Y.S. min. 350 MPa, T.S. min. 510 MPa, elong. min 30%, CVn min. 47J @ -20 deg. C

AUSTRIA

Böhler Schweisstechnik Austria GmbH

Böhler Fox CM2-Kb	ABS	^	F, V, H	dcep	2.0 - 5.0 mm	HAAN
^ Intended for use with low alloy / high temp. steels, subject to special approval with each application.						
Böhler Fox DCMS-Kb	ABS	^	F, V, H	dcep	2.0 - 5.0 mm	HAAN
^ Intended for use with low alloy / high temp. steel, subject to special approval with each application.						
Böhler Fox DMO-Kb	ABS	^	F, V, H	dcep	2.0 - 5.0 mm	HAAN
^ Intended for use with alloy / high temp. steel, subject to special approval with each application.						

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AUSTRIA						
Böhler Schweisstechnik Austria GmbH						
Böhler Fox MSU	ABS	2Y*	All, V-down	ac / dcen	3.2 - 5.0 mm	HAAN
* Non low hydrogen electrode; requires special approval for use on higher strength steel.						
Fox 2.5Ni	AWS A5.5	2Ni 1/2.6	All	dcep	2.5 - 5.0 mm	AUGSBURG
Fox 7018	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	AUGSBURG
Fox Cel 85	AWS A5.5-06	E8010-P1		dcep	3.2 - 5.5 mm	AUGSBURG
Fox Cel Mo	AWS A5.5-06	E7010-A1		dcep	2.5 - 5.0 mm	AUGSBURG
Fox CN 19/9N	AWS A5.4-06	Cr18/21,Ni8/11Mo	All	dcep	2.5 - 5.0 mm	AUGSBURG
Fox CN 22/9 N	AWS A5.4-06	E2209-17		dcep	2.5 - 5.0 mm	AUGSBURG
Fox CN 23/12 A	AWS A5.4-06	E309L-17		ac / dcep	2.0 - 5.0 mm	AUGSBURG
Fox CN 23/12 Mo-A	AWS A5.4-06	E309MoL-17		ac / dcep	2.0 - 5.0 mm	AUGSBURG
Fox EAS 2-A	AWS A5.4-06	E308L-17		ac / dcep	1.5 - 5.0 mm	AUGSBURG
Fox EAS 4 M-A	AWS A5.4-06	E316L-17		ac / dcep	1.5 - 5.0 mm	AUGSBURG
Fox ETI	ABS	2	All	ac / dcep	2.5 - 5.0 mm	AUGSBURG
Fox EV 47	ABS	3 H5	All	ac / dcep	2.0 - 5.0 mm	AUGSBURG
Fox EV 50	ABS	4Y H5	All	ac / dcep	2.0 - 5.0 mm	AUGSBURG
Fox EV 60	ABS	3Y	All	dcep	2.5 - 5.0 mm	AUGSBURG
Fox EV 85 HY	AWS A5.5	E11018-G	All	dcep	2.5 - 5.0 mm	AUGSBURG
Fox FF-A	AWS A5.4	E309-17		ac / dcep	1.5 - 5.0 mm	AUGSBURG
Fox HL180Ti	ABS	2	F	ac / dcen	3.2 - 5.0 mm	AUGSBURG
Fox OHV	ABS	2	All	ac / dcen	2.0 - 5.0 mm	AUGSBURG
Fox SAS 2	AWS A5.4-06	E347-15		dcep	2.0 - 4.0 mm	AUGSBURG
Fox SAS 2-A	AWS A5.4-06	E347-17		ac / dcep	1.5 - 5.0 mm	AUGSBURG
Fox SAS 4	AWS A5.4-06	E318-15		dcep	1.5 - 5.0 mm	AUGSBURG
Fox TMF	ABS	2	All, V-down	ac / dcen	3.2 - 4.0 mm	AUGSBURG
Phoenix CEL 70	AWS A5.1-04	E6010			2.5 - 5.0 mm	AUGSBURG
Phoenix CEL 80	AWS A5.5-06	E8010-P1			2.5 - 5.0 mm	AUGSBURG

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See also Böhler Thyssen Schweisstechnik Deutschland GmbH

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BANGLADESH						
BOC Bangladesh Ltd.						
Ferrocrafter 11	ABS	3	All, V-down	ac / dc	2.5 - 5.0 mm	CHITTAGONG
Ferrocrafter 61	ABS	3Y	All, V-down	ac / dc	2.5 - 5.0 mm	CHITTAGONG
Ferrospeed (AWS A5.1 E6012)	ABS	1	All	ac / dc	2.5 - 5.0 mm	CHITTAGONG
Vortic Marine (AWS A5.1 E6013)	ABS	3	All	ac / dc	2.5 - 5.0 mm	CHITTAGONG

BELGIUM

Filarc Soudre

For listing of Filarc filler metals, see Filarc / Esab Mor Kft., Hungary

Laspro N.V.

Lastek 001	ABS	2	All	ac / dc	3.25 - 4.0 mm	ANTWERP
Lastek 005	ABS	2	All	ac / dc	3.25 - 4.0 mm	ANTWERP
Lastek 020	ABS	3Y	All	ac / dc	3.25 - 5.0 mm	ANTWERP
Lastek 1130	ABS	2	All	ac / dc	3.25 - 4.0 mm	ANTWERP

BRAZIL

Bohler Tecnica de Soldagem Ltda.

Bohler Fox CN 22/9N	AWS A5.4	E2209-17	All	ac / dcep	3.25 - 4.0 mm	SÃO PAULO
Bohler Fox EV 50	ABS	4Y400 H5	All	dcep	2.0 - 6.0 mm	SÃO PAULO
Thermanit 25/09 Cut	En 1600	E2594 NL B22	All	dcep	2.5 - 4.0 mm	SÃO PAULO
UTP 68	AWS A5.4	E347-17	All	ac / dcep	2.0 - 4.0 mm	SÃO PAULO
UTP 68 MOLC	AWS A5.4	E316L-17	All	ac / dcep	2.0 - 5.0 mm	SÃO PAULO
UTP 682 LC	AWS A5.4	E309L-17	All	ac / dcep	2.4 - 4.0 mm	SÃO PAULO

Esab S.A. Industria e Comercio

OK 22.60	ABS	3	All	ac / dcep	2.0 - 5.0 mm	SÃO PAULO
OK 22.65P	ABS	3	All, V-down	ac / dc (r)	2.5 - 5.0 mm	SÃO PAULO
OK 33.80	ABS	2Y*	F	ac / dcen	3.25 - 6.0 mm	SÃO PAULO
*Non low hydrogen electrode. Requires special approval for use on higher strength steel.						
OK 46.00	ABS	2	All	ac / dcep	2.0 - 6.0 mm	SÃO PAULO
OK 48.04	ABS	3Y	All	ac / dcep	2.0 - 6.0 mm	SÃO PAULO

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BRAZIL						
Esab S.A. Industria e Comercio						
OK 48.06	ABS	3Y	All**	ac / dcep	2.5 - 5.0 mm	SÃO PAULO
**Size 5.0 mm of this consumable shall not be used for vertical up and overhead welding.						
OK 48.11	ABS	4Y400 H5	All	ac / dcep	2.5 - 5.0 mm	SÃO PAULO
OK 55.00	ABS	3Y	All	ac / dcep	2.5 - 6.0 mm	SÃO PAULO
Pipeweld 6010 Plus	ABS	3	All, V-down	ac / dcep	2.5 - 5.0 mm	SÃO PAULO
Pipeweld 6010 Plus	AWS A5.1	E6010	All	dcep	4.0 - 5.0 mm	SÃO PAULO

Lincoln Electric do Brasil Industria & Comercio Ltda.

Lincoln 78	ABS	3Y	All	ac / dcep	2.5 - 5.0	SÃO PAULO
Simaouro 50	ABS	3Y	All	ac / dcep	4.0 - 5.0	SÃO PAULO

BULGARIA

ESAB Electrodes JSC

OK 46.00	ABS	2	All	ac / dc	2.0 - 6.0 mm	CONSTANTZA
OK 48.00	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	CONSTANTZA
OK 48.60	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	CONSTANTZA
OK 55.00	ABS	3Y H5	All	ac	2.5 - 5.0 mm	CONSTANTZA

CANADA

Air Liquide Canada Inc.

LA Ultra 11	ABS	3	All	ac / dcep	2.5 - 6.0 mm	QUEBEC
LA18 LMP	ABS	3Y H5	All	ac / dcep	2.5 - 5.0 mm	QUEBEC
LA7018	ABS	3Y H5	All	ac / dcep	2.5 - 6.0 mm	QUEBEC
LA7028	ABS	3Y H5	F	ac / dcep	3.2 - 5.0 mm	QUEBEC

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CHILE						
Industria Y Comercio Indura S.A.						
Indura 230S	ABS	2	All	ac / dcep	2.4 - 4.8 mm	VALPARAISO
Indura 6010	ABS	2	All	dcep	2.4 - 4.8 mm	VALPARAISO
Indura 6011	ABS	2	All	ac / dcep	2.4 - 4.8 mm	VALPARAISO
Indura 7018 RH	ABS	3 H5	All	dcep	2.4 - 6.4 mm	VALPARAISO
Indura 7018-1 Gold	AWS A5.1	E7018-1 H8	All	ac / dcep	2.4 - 4.8 mm	VALPARAISO
Indura 7018-AR-1	ABS	3 H5	All	ac / dcep	2.4 - 4.8 mm	VALPARAISO
Indura 8018-C1	ABS	3Y	All	dcep	2.4 - 4.8 mm	VALPARAISO

M & H Comercial E Industrial LTDA

170-LA	ABS	3 H5	All	ac / dcep	2.4 - 4.8 mm	VALPARAISO
AC-1	ABS	2	All	ac / dcep	2.4 - 4.8 mm	VALPARAISO
AP-100	ABS	2	All	dcep	2.4 - 4.8 mm	VALPARAISO

CHINA, PEOPLES REPUBLIC OF

Anqiu San Kin Yip Deng Feng Welding Material Co., Ltd.

WH.J421 (E6013)	ABS	2	All	ac / dcep	2.5 - 5.0 mm	QINGDAO
WH.J421 (E6013)	ABS	2	All	ac / dcep	2.5 - 5.0 mm	QINGDAO
WH.J506Fe (E7018)	ABS	3Y	All	ac / dcep	2.5 - 5.0 mm	QINGDAO
WH.J507 (E7015)	ABS	3Y	All	dcep	2.5 - 5.0 mm	QINGDAO

Atlantic China Welding Consumables (China Welding Electrode Plant)

CHE40	ABS	2	F	ac / dcep	5.0 mm	GUANGZHOU
CHE40	ABS	2	All	ac / dcep	2.5 - 4.0 mm	GUANGZHOU
CHE42	ABS	3	F	ac / dcep	5.0 mm	GUANGZHOU
CHE42	ABS	3	All	ac / dcep	2.5 - 4.0 mm	GUANGZHOU
CHE421Fe18	ABS	2	F	ac	3.2 - 5.0 mm	GUANGZHOU
CHE43	ABS	2	F	ac	5.0 mm	GUANGZHOU
CHE43	ABS	2	All	ac	2.5 - 4.0 mm	GUANGZHOU
CHE47	ABS	3 H10	F	dcep	5.0 mm	GUANGZHOU
CHE47	ABS	3 H10	All	dcep	2.5 - 4.0 mm	GUANGZHOU
CHE50	ABS	3Y	F	dcep	5.0 mm	GUANGZHOU

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CHINA, PEOPLES REPUBLIC OF						
Atlantic China Welding Consumables (China Welding Electrode Plant)						
CHE50	ABS	3Y	All	dcep	2.5 - 4.0 mm	GUANGZHOU
CHE501Fe18	ABS	2Y*	F	ac	3.2 - 5.0 mm	GUANGZHOU
* Non-low hydrogen electrode; requires special approval for use on higher-strength steel.						
CHE502	ABS	2Y*	All	ac	3.2 - 4.0 mm	GUANGZHOU
* Non-low hydrogen electrode; requires special approval for use on higher-strength steel.						
CHE502	ABS	2Y*	F	ac	5.0 mm	GUANGZHOU
* Non-low hydrogen electrode; requires special approval for use on higher-strength steel.						
CHE56	ABS	3Y	All	ac	2.5 - 4.0 mm	GUANGZHOU
CHE56	ABS	3Y	F	ac	5.0 mm	GUANGZHOU
CHE58-1	ABS	3Y H5	F	dcep	5.0 mm	GUANGZHOU
CHE58-1	ABS	3Y H5	All	dcep	2.5 - 4.0 mm	GUANGZHOU
Baoding Lanyu Welding Materials Co., Ltd.						
LY E6013	ABS	2	All	ac / dc	2.5 - 5.0 mm	TIANJIN
Bohler Welding Technology (China) Co., Ltd.						
Bohler Fox EV11018	ABS	5YQ690 H5	All, Fillet	dcep	2.5 - 5.0 mm	SHANGHAI
Bohler Fox Ni1	ABS	5YQ460 H5	All, Fillet	dcep	2.5 - 5.0 mm	SHANGHAI
E7018	ABS	4Y H5	All	dcep	2.5 - 5.0 mm	SHANGHAI
E7018-1	ABS	4Y H5	All	dcep	2.5 - 5.0 mm	SHANGHAI
T Phoenix 11018	ABS	5YQ690 H5	All, Fillet	dcep	2.5 - 5.0 mm	SHANGHAI
T Phoenix Ni1	ABS	5YQ460 H5	All, Fillet	dcep	2.5 - 5.0 mm	SHANGHAI
Changzhou Huatong Welding Wire Co., Ltd.						
HTJ422 (E4043)	ABS	2	all	ac / dc	2.5 - 5.0 mm	NANTONG
HTT507 (E5015)	ABS	3Y	all	dcep	2.5 - 5.0 mm	NANTONG
Cody Welding Pte. Ltd.						
GPJ421	ABS	2	All	ac / dc	2.5 - 5.0 mm	GUANGZHOU
GPJ506	ABS	3Y	All	ac / dcep	2.5 - 5.0 mm	GUANGZHOU
GPJ506Fe	ABS	3Y	All	ac / dcep	3.2 - 5.0 mm	GUANGZHOU

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CHINA, PEOPLES REPUBLIC OF						
ESAB Welding Products (Weihai) Co., Ltd.						
ESAB E6013	ABS	2	All	ac / dcep	2.5 - 5.0 mm	YANTAI
OK 48.08	ABS	3Y H5	All	ac / dcep	2.5 - 5.0 mm	YANTAI
Guilin Guiguan Welding Material Co. Ltd.						
Crystal Edge J421	ABS	2	All	ac / dc	2.5 - 5.0 mm	GUANGZHOU
Crystal Edge J422	ABS	3	All	ac / dc	2.5 - 5.0 mm	GUANGZHOU
Crystal Edge J506 (Morning Star SR-018)	ABS	3Y	All	ac / dc	3.2 - 5.0 mm	GUANGZHOU
Jiangyin Dongqing Welding Material Co., Ltd.						
JH.E 4303	ABS	2	F	dcep	5.0 mm	NANTONG
JH.E 4303	ABS	2	All	dcep	3.2 - 4.0 mm	NANTONG
JH.E 5015	ABS	3Y	All	dcep	5.0 mm	NANTONG
JH.E 5015	ABS	3Y	All	dcep	3.2 - 4.0 mm	NANTONG
JH.E 5024	ABS	2Y*	HF	dcep	4.0 - 5.0 mm	NANTONG
Jinzhou Jin Tai Welding & Metal Co. Ltd.						
JL-50	ABS	3Y	All	ac / dcep	3.2 - 4.0 mm	DALIAN
JL-50	ABS	3Y	F	ac / dcep	5.0 mm	DALIAN
JL-507	ABS	3Y	All	dcep	5.0 mm	DALIAN
JL-507	ABS	3Y	All	dcep	3.2 - 4.0 mm	DALIAN
JS-2209	AWS A5.4	E2209-16	F, H	ac / dcep	2.6 - 5.0 mm	DALIAN
JS-2209	AWS A5.4	E2209-16	V, OH	ac / dcep	2.6 - 4.0 mm	DALIAN
JS-308	AWS A5.4	E308-16	V, OH	ac / dcep	2.6 - 4.0 mm	DALIAN
JS-308	AWS A5.4	E308-16	F, H	ac / dcep	2.6 - 5.0 mm	DALIAN
JS-308L	AWS A5.4	E308L-16	All	ac / dcep	2.6 - 5.0 mm	TIANJIN
JS-309	AWS A5.4	E309-16	V, OH	ac / dcep	2.6 - 4.0 mm	DALIAN
JS-309	AWS A5.4	E309-16	F, H	ac / dcep	2.6 - 5.0 mm	DALIAN
JS-309L	AWS A5.4	E309L-16	All	ac / dcep	2.6 - 5.0 mm	TIANJIN
JS-316L	AWS A5.4	E316L-16	All	ac / dcep	2.6 - 5.0 mm	TIANJIN
Jinzhou Swan Welding Consumable Co. Ltd.						
JH-J422	ABS	3	All	ac / dcep	2.5 - 5.0 mm	DALIAN

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CHINA, PEOPLES REPUBLIC OF

Jinzhou Swan Welding Consumable Co. Ltd.

JH-J507	ABS	3Y*	All	dcep	3.2 - 5.0 mm	DALIAN
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*Meets mechanical properties of AWS A5.1: E7015

Jiuquan Iron & Steel Group Lanzhou Changhong Welding Materials Co.

LHJ422	ABS	3	F	ac / dcep	5.0 mm	TIANJIN
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LHJ422	ABS	3	All	ac / dcep	2.5 - 4.0 mm	DALIAN
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Kunshan Gintune Welding Co., Ltd.

GEL-118M	ABS	5YQ690	All	ac / dcep	2.5 - 5.0 mm	SHANGHAI
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GEL-57	ABS	3Y	All	dcep	2.6 - 5.0 mm	SHANGHAI
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GEL-57Ni	ABS	4Y	F	dcep	5.0 mm	SHANGHAI
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GEL-57Ni	ABS	4Y	All	dcep	2.6 - 4.0 mm	SHANGHAI
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GEL-66	ABS	4YQ500 H5	F	ac / dcep	5.0 mm	SHANGHAI
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GEL-66	ABS	4YQ500 H5	All	ac / dcep	2.6 - 4.0 mm	SHANGHAI
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GER-N28	ABS	5YQ420	All	dcep	2.6 - 4.0 mm	SHANGHAI
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GER-N28	ABS	5YQ420	F	dcep	5.0 mm	SHANGHAI
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GES-2209	AWS A5.4	E2209-16	All	ac / dcep	2.6 - 4.0 mm	SHANGHAI
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GES-2209	AWS A5.4	E2209-16	F	ac / dcep	5.0 mm	SHANGHAI
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GES-308	AWS A5.4	E308-16	All	ac / dcep	2.6 - 4.0 mm	SHANGHAI
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GES-308	AWS A5.4	E308-16	F	ac / dcep	5.0 mm	SHANGHAI
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GES-308L	AWS A5.4	E308L-16	All	ac / dcep	2.6 - 4.0 mm	SHANGHAI
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GES-308L	AWS A5.4	E308L-16	F, H	ac / dcep	5.0 mm	SHANGHAI
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GES-309	AWS A5.4	E309-16	F	ac / dcep	5.0 mm	SHANGHAI
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GES-309	AWS A5.4	E309-16	All	ac / dcep	2.6 - 4.0 mm	SHANGHAI
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GES-309L	AWS A5.4	E309L-16	All	ac / dcep	2.6 - 4.0 mm	SHANGHAI
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GES-309L	AWS A5.4	E309L-16	F, H	ac / dcep	5.0 mm	SHANGHAI
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GES-309MoL	AWS A5.4	E309LMo-16	F	ac / dcep	5.0 mm	SHANGHAI
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GES-309MoL	AWS A5.4	E309LMo-16	All	ac / dcep	2.6 - 4.0 mm	SHANGHAI
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GES-316L	AWS A5.4	E316L-16	All	ac / dcep	2.6 - 4.0 mm	SHANGHAI
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GES-316L	AWS A5.4	E316L-16	F	ac / dcep	5.0 mm	SHANGHAI
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GES-347	AWS A5.4	E347-16	F	ac / dcep	5.0 mm	SHANGHAI
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CHINA, PEOPLES REPUBLIC OF

Kunshan Gintune Welding Co., Ltd.

GES-347	AWS A5.4	E347-16	All	ac / dcep	2.6 - 4.0 mm	SHANGHAI
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MCC Welding Science & Technology Co., Ltd.

ZYJ506	ABS	3Y H10	All	ac / dcep	3.2 - 5.0 mm	TIANJIN
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ZYJ507	ABS	3Y H10	All	dcep	3.2 - 5.0 mm	TIANJIN
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Nanjing Lincoln Electric Co., Ltd.

Easyarc 6013	ABS	2	F	ac / dcep	5.0 mm	NANJING
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Easyarc 6013	ABS	2	All	ac / dcep	2.5 - 4.0 mm	NANJING
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Easyarc 7015	ABS	3Y H5	F	dcep	5.0 mm	NANJING
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Easyarc 7015	ABS	3Y H5	All	dcep	2.5 - 4.0 mm	NANJING
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Easyarc 7016	ABS	3Y H5	All	ac / dcep	2.5 - 4.0 mm	NANJING
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Easyarc 7016	ABS	3Y H5	F	ac / dcep	5.0 mm	NANJING
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Easyarc 7018	ABS	3Y H5	All	ac / dcep	2.5 - 4.0 mm	NANJING
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Easyarc 7018	ABS	3Y H5	F	ac / dcep	5.0 mm	NANJING
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Easyarc 7018-1	ABS	4Y	F	ac / dcep	5.0 mm	NANJING
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Easyarc 7018-1	ABS	4Y	All	ac / dcep	2.5 - 4.0 mm	NANJING
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Easyarc 7024	ABS	3Y*	F-fillet	ac / dcep	3.2 - 5.0 mm	NANJING
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*Non-low hydrogen electrode requires special approval for use with higher strength steels.

NJ421Fe18	ABS	2	F	ac / dc	4.0 - 5.0 mm	NANJING
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NJ422	ABS	3	F	ac / dc	5.0 mm	NANJING
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NJ422	ABS	3	All	ac / dc	2.5 - 4.0 mm	NANJING
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NJ501Fe18	ABS	3Y*	F	ac	4.0 - 5.0 mm	NANJING
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*Non low hydrogen electrode, requires special approval for use with higher strength steels.

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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CHINA, PEOPLES REPUBLIC OF

Nanjing Lincoln Electric Co., Ltd.

NJ502	ABS	3Y*	F	ac / dcep	5.0 mm	NANJING
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*Non low hydrogen electrode, requires special approval for use with higher strength steels.

NJ502	ABS	3Y*	All	ac / dcep	2.5 - 4.0 mm	NANJING
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*Non low hydrogen electrode, requires special approval for use with higher strength steels.

NJ507	ABS	3Y	F	dcep	5.0 mm	NANJING
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NJ507	ABS	3Y	All	dcep	2.5 - 4.0 mm	NANJING
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Nantong Haotai Welding Material Co., Ltd.

J421	ABS	2	All	ac / dc	2.5 - 4.0 mm	NANTONG
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J421Fe18	ABS	2	F	ac / dc	4.0 - 5.0 mm	NANTONG
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J422	ABS	3	All	ac / dc	2.5 - 5.0 mm	NANTONG
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J506Fe	ABS	3Y H10	All	ac / dc	2.5 - 5.0 mm	NANTONG
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J507	ABS	3Y H10	All	dcep	2.5 - 5.0 mm	NANTONG
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Shandong Juli Welding Co., Ltd.

JL-J421 (E4313, E6013)	ABS	2	All	ac / dc	2.5 - 5.0 mm	TIANJIN
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JL-J506 (E5016, E7016)	ABS	3Y	All	ac / dc	3.2 - 5.0 mm	TIANJIN
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JL-J506Fe (E5018, E7018)	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	TIANJIN
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JL-J507 (E5015, E7015)	ABS	3Y	All	dc	3.2 - 5.0 mm	TIANJIN
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Shanghai Atlantic Welding Consumables Co. Ltd.

CHE50	ABS	3Y	All	dcen	2.5 - 5.0 mm	SHANGHAI
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CHE56	ABS	3Y	All	ac / dcep	2.5 - 4.0 mm	SHANGHAI
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CHE56	ABS	3Y	F	ac / dcep	5.0 mm	SHANGHAI
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CHE58-1	ABS	3Y H5	All	ac / dcen	2.5 - 5.0 mm	SHANGHAI
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Shanghai Welding Equipments & Consumables Co. Ltd.

SE421	ABS	2	All	ac / dc	2.0 - 4.0 mm	SHANGHAI
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Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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CHINA, PEOPLES REPUBLIC OF

Shanghai Welding Equipments & Consumables Co. Ltd.

SE421.01	ABS	2	All	ac / dc	2.0 - 4.0 mm	SHANGHAI
SE421.01	ABS	2	F	ac / dc	5.0 mm	SHANGHAI
SE422.01	ABS	3	F	ac / dc	5.0 mm	SHANGHAI
SE422.01	ABS	3	All	ac / dc	2.0 - 4.0 mm	SHANGHAI
SE427.01	ABS	3 H10	All	dcep	3.2 - 4.0 mm	SHANGHAI
SE427.01	ABS	3 H10	F	dcep	5.0 mm	SHANGHAI
SE507.01	ABS	3Y	All	dcep	2.5 - 4.0 mm	SHANGHAI
SE507.01	ABS	3Y	F	dcep	5.0 mm	SHANGHAI
SH.E6013	ABS	2	All	ac / dc	2.5 - 4.0 mm	SHANGHAI
SH.E7018	ABS	3Y	F	ac / dc	5.0 mm	SHANGHAI
SH.E7018	ABS	3Y	All	ac / dc	2.5 - 4.0 mm	SHANGHAI

Shenzhen Atlantic Welding Consumables Co., Ltd.

CHE40	ABS	2	All	ac / dc	2.5 - 4.0 mm	GUANGZHOU
CHE42	ABS	3	F	ac / dc	5.0 mm	GUANGZHOU
CHE42	ABS	3	All	ac / dc	2.5 - 4.0 mm	GUANGZHOU
CHE47	ABS	3 H10	F	dc	5.0 mm	GUANGZHOU
CHE47	ABS	3 H10	All	dc	2.5 - 4.0 mm	GUANGZHOU
CHE50	ABS	3Y	F	dc	5.0 mm	GUANGZHOU
CHE50	ABS	3Y	All	dc	2.5 - 4.0 mm	GUANGZHOU
CHE56	ABS	3Y	All	ac / dc	2.5 - 4.0 mm	GUANGZHOU
CHE56	ABS	3Y	F	ac / dc	5.0 mm	GUANGZHOU

Shijiazhuang Magic Welding Consumables Co., Ltd.

E4303 (TJ422)	ABS	3	All	ac / dc	2.5 - 4.0 mm	YANTAI
E4303 (TJ422)	ABS	3	F	ac / dc	5.0 mm	YANTAI
E6013 (TJ421)	ABS	2	F	ac / dc	5.0 mm	YANTAI
E6013 (TJ421)	ABS	2	All	ac / dc	2.5 - 4.0 mm	YANTAI

Supertech (Kunshan) Co. Ltd.

S-4301.1	ABS	3	All	ac / dcep / dcen	2.5 - 4.0 mm	SHANGHAI
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Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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CHINA, PEOPLES REPUBLIC OF

Supertech (Kunshan) Co. Ltd.

S-4301.1	ABS	3	F	ac / dcep / dcen	5.00 mm	SHANGHAI
S-6013.LF	ABS	2	All	ac / dcep / dcen	2.6 - 6.0 mm	SHANGHAI
S-7016.H	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	SHANGHAI
S-7018.1	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	SHANGHAI
S-7018.G	ABS	3Y	All	ac / dcep	2.6 - 6.0 mm	SHANGHAI
S-7024.F	ABS	2Y*	F, HF	ac / dcep / dcen	3.2 - 6.0 mm	SHANGHAI

Taizhou Haixiang Welding Materials Co., Ltd.

HX J422	ABS	3	All	ac	3.2 - 4.0 mm	NINGBO
HX J507	ABS	3Y H5	All	dcep	3.2 - 4.0 mm	NINGBO

Taizhou Universe Precision Welding Materials Co., Ltd.

J501Fe18 (E5024)	ABS	2Y	F	ac / dc	4.0 - 5.0 mm	YANGZHOU
TH-110 (J421)	ABS	2	All	ac / dc	2.5 - 4.0 mm	YANGZHOU
TH-110Fe (J421Fe18)	ABS	2	F	ac / dc	4.0 - 5.0 mm	YANGZHOU
TH-112 (J422)	ABS	3	All	ac / dc	2.5 - 4.0 mm	YANGZHOU
TH-112 (J422)	ABS	3	F	ac / dc	5.0 mm	YANGZHOU
TH-216 (J506)	ABS	3Y	All	ac / dc	2.5 - 4.0 mm	YANGZHOU
TH-216 (J506)	ABS	3Y	F	ac / dc	5.0 mm	YANGZHOU
TH-216Fe (J506Fe)	ABS	3Y	F	ac / dcep	5.0 mm	YANGZHOU
TH-216Fe (J506Fe)	ABS	3Y	All	ac / dcep	2.5 - 4.0 mm	YANGZHOU
TH-217 (J507)	ABS	3Y	All	dcep	2.5 - 4.0 mm	YANGZHOU
TH-217 (J507)	ABS	3Y	F	dcep	5.0 mm	YANGZHOU

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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CHINA, PEOPLES REPUBLIC OF

Tianjin Bridge Welding Material Group Co. Ltd.

J421	ABS	2	All	ac / dc	2.5 - 5.0 mm	TIANJIN
THJ422	ABS	3	All	ac / dc	2.5 - 5.0 mm	TIANJIN
THJ506	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	TIANJIN
THJ506Fe	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	TIANJIN
THJ507	ABS	3Y	All	dcep	2.5 - 5.0 mm	TIANJIN
THJ807RH	ABS	4YQ690 H5	F	dcep	3.2 - 4.0 mm	YANTAI

Tianjin Golden Bridge Welding Materials Group Co. Ltd.

A002	AWS A5.4	E308L-16	All	dcep	2.5 - 4.0 mm	DALIAN
A022	AWS A5.4	E316L-16	All	dcep	2.5 - 5.0 mm	DALIAN
A062	AWS A5.4	E309L-16	All	dcep	3.2 - 4.0 mm	DALIAN
A102	AWS A5.4	E308-16	All	dcep	2.5 - 5.0 mm	DALIAN
A302	AWS A5.4	E309-16	All	dcep	2.5 - 5.0 mm	DALIAN
J38.12(J421)	ABS	2	All	ac / dc	2.5 - 5.0 mm	YANTAI
J38.62Fe18 (J501Fe18)	ABS	2Y	F	ac / dc	2.5 - 5.0 mm	YANTAI
J40.50 (J422)	ABS	3	All	ac / dc	2.5 - 5.0 mm	YANTAI
J48.56 (J506)	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	YANTAI
J48.56Fe (J506Fe)	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	YANTAI
J48.56Fe-1 (J506Fe-1)	ABS	4Y H5	All	ac / dc	2.5 - 5.0 mm	YANTAI
J48.57 (j507)	ABS	3Y	All	dc	2.5 - 5.0 mm	YANTAI

Tianjin Minmetals Co., Ltd. (Tianjin Permanent Welding Consumables)

"MT" Brand MT-6013	ABS	2	All	ac / dc	2.0 - 5.0 mm	TIANJIN
Permanent (Cenmet) (TJWeld) MT-12	ABS	2	F	ac / dc	5.0 mm	TIANJIN
Permanent MT-12 is identical to Red Triangle E4313						
Permanent (Cenmet) (TJWeld) MT-12	ABS	2	All	ac / dc	2.0 - 4.0 mm	TIANJIN
Permanent MT-12 is identical to Red Triangle E4313						
Permanent (Cenmet) (TJWeld) MT-48	ABS	3Y	All	ac / dc	2.0 - 4.0 mm	TIANJIN
Permanent MT-48 is identical to Red Triangle E5018						
Permanent (Cenmet) (TJWeld) MT-48	ABS	3Y	F	ac / dc	5.0 mm	TIANJIN
Permanent MT-48 is identical to Red Triangle E5018						

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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CHINA, PEOPLES REPUBLIC OF

Tianjin Minmetals Co., Ltd. (Tianjin Permanent Welding Consumables)

Permanent (Cenmet) (TJWeld) MT-50	ABS	3	All	ac / dc	2.5 - 5.0 mm	TIANJIN
Permanent MT-48 is identical to Red Triangle E4303						
Permanent (Cenmet) (TJWeld) MT-52	ABS	2Y	F	ac / dc	3.2 - 5.0 mm	YANTAI
Permanent (Cenmet) (TJWeld) MT-B52	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	TIANJIN

Tianjin Permanent Welding Consumables Co., Ltd.

Red Triangle E4303	ABS	3	All	ac / dc	2.5 - 5.0 mm	TIANJIN
Red Triangle E4313	ABS	2	All	ac / dc	2.0 - 4.0 mm	TIANJIN
Red Triangle E4313	ABS	2	F	ac / dc	5.0 mm	TIANJIN
Red Triangle E5016	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	TIANJIN
Red Triangle E5018	ABS	3Y	All	ac / dc	2.5 - 4.0 mm	TIANJIN
Red Triangle E5018	ABS	3Y	F	ac / dc	5.0 mm	TIANJIN
Red Triangle E5024	ABS	2Y	F	ac / dc	3.2 - 5.0 mm	TIANJIN
Red Triangle E6013	ABS	2	All	ac / dc	2.0 - 5.0 mm	TIANJIN

Tianjin Yanqiao Welding Materials Co. Ltd.

J38.12(J421)	ABS	2	All	ac / dc	2.5 - 5.0 mm	TIANJIN
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Tien Tai Electrode (Kunshan) Co. Ltd.

TL-427	ABS	3 H10	All	dcep	3.2 - 4.0 mm	SHANGHAI
TL-427	ABS	3 H10	F	dcep	5.0 mm	SHANGHAI
TL-50	ABS	3Y	All	dcep	2.6 - 5.0 mm	SHANGHAI
TL507	ABS	3Y	F	dcep	5.0 mm	SHANGHAI
TL507	ABS	3Y	All	dcep	2.6 - 4.0 mm	SHANGHAI
TL-507Ni	ABS	4Y	All	dcep	3.2 - 4.0 mm	SHANGHAI
TL-507Ni	ABS	4Y	F	dcep	5.0 mm	SHANGHAI

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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CHINA, PEOPLES REPUBLIC OF

Tien Tai Electrode (Kunshan) Co. Ltd.

TL-508	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	SHANGHAI
TS-308L	AWS A5.4	E308L-16	All	ac / dcep	2.6 - 4.0 mm	SHANGHAI
TS-308L	AWS A5.4	E308L-16	F, H	ac / dcep	4.8 mm	SHANGHAI
TS-309L	AWS A5.4	E309L-16	F, H	ac / dcep	4.8 mm	SHANGHAI
TS-309L	AWS A5.4	E309L-16	All	ac / dcep	2.6 - 4.0 mm	SHANGHAI
TS-316L	AWS A5.4	E316L-16	F, H	ac / dcep	4.8 mm	SHANGHAI
TS-316L	AWS A5.4	E316L-16	All	ac / dcep	2.6 - 4.0 mm	SHANGHAI

Wuhan Anchor Welding Consumables Co., Ltd.

CJ421	ABS	2	All	ac / dc	2.5 - 5.0 mm	GUANGZHOU
CJ421FeZ**	ABS	2	F	ac / dc	4.0 - 5.0 mm	GUANGZHOU
**Recommend by manufacturer for (HF) gravity welding with 4.0 - 5.8 mm size electrodes.						
CJ422	ABS	3	All	ac / dc	2.5 - 5.0 mm	GUANGZHOU
CJ427	ABS	3 H15	All	dcep	2.5 - 5.0 mm	GUANGZHOU
CJ501FeZ**	ABS	2Y	F	ac / dcep	3.2 - 5.0 mm	GUANGZHOU
**Recommend by manufacturer for (HF) gravity welding with 4.0 - 5.8 mm size electrodes.						
CJ506	ABS	3Y	All	ac / dcep	2.5 - 5.0 mm	GUANGZHOU
CJ506Fe	ABS	3Y	All	ac / dcep	3.2 - 5.0 mm	GUANGZHOU
CJ507	ABS	3Y	All	dcep	2.5 - 5.0 mm	GUANGZHOU

Wuhan Anchor Welding Consumables Co., Ltd. Dalian Branch

BH507 (E5015)	ABS	3Y	All	dcep	3.2 - 5.0 mm	DALIAN
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Xinjiang Welding Electrodes Co., Ltd.

XH.E6013	ABS	2	All	ac / dc	2.5 - 4.0 mm	SHANGHAI
XH.E6013	ABS	2	F	ac / dc	5.0 mm	SHANGHAI
XH.E7018	ABS	3Y	All	ac / dc	2.5 - 4.0 mm	SHANGHAI
XH.E7018	ABS	3Y	F	ac / dc	5.0 mm	SHANGHAI
XH.E7024	ABS	2Y*	F	ac / dc	3.2 - 5.0 mm	SHANGHAI
* Non-low hydrogen electrode; requires special approval for use on higher-strength steel.						
XH.J507	ABS	3Y H5	All	dcep	2.5 - 4.0 mm	ZHOUSHAN

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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CHINA, PEOPLES REPUBLIC OF

Xuzhou Zhengguang Welding Material Factory

ZGHE4303	ABS	2	All	ac / dc	2.5 - 5.0 mm	NANJING
ZGHE5015	ABS	3Y	All	dcep	3.2 - 4.0 mm	NANJING
ZGHE5018	ABS	3Y	All	ac / dcep	3.2 - 4.0 mm	NANJING
ZGHE5024	ABS	2Y*	F	ac / dcep	3.2 - 5.8 mm	NANJING

* Non low hydrogen electrode; requires special approval for use with higher strength steel.

Yangzhou Golden Anchor Welding Material Factory

YZJ421Fe	ABS	2	F	ac / dc	3.2 - 5.0 mm	YANGZHOU
YZJ422	ABS	3	All	ac / dc	2.5 - 4.0 mm	YANGZHOU
YZJ501Fe	ABS	3Y*	F	ac / dc	3.2 - 5.0 mm	YANGZHOU

* Non-low hydrogen electrode; requires special approval for use on higher-strength steel.

YZJ502	ABS	3	All	ac / dc	2.5 - 4.0 mm	YANGZHOU
YZJ506	ABS	3Y	All	ac / dc	2.5 - 4.0 mm	YANGZHOU
YZJ507	ABS	3Y*	All	dcep	2.5 - 4.0 mm	YANGZHOU

* Non-low hydrogen electrode; requires special approval for use on higher-strength steel.

Zhejiang Daya Welding Material Co., Ltd.

DYJ422	ABS	3	All	ac / dc	2.5 - 5.0 mm	NINGBO
DYJ507	ABS	3Y	All	dcep	3.2 - 5.0 mm	NINGBO

Zhejiang Suichang Xinli Welding Material Co., Ltd.

Y&L-E6013	ABS	2	All	ac	2.5 - 4.0 mm	NINGBO
YL-E4303J422	ABS	3	F	ac	5.0 mm	NINGBO
YL-E4303J422	ABS	3	All	ac	2.5 - 4.0 mm	NINGBO

Zibo Qilu Welding Industry Co., Ltd.

QILU421 (E4313, AWS E6013)	ABS	2	All	ac / dc	2.5 - 4.0 mm	YANTAI
QILU421 (E4313, AWS E6013)	ABS	2	F	ac / dc	2.5 mm - 5.00mm	QINGDAO
QILU422 (E4303)	ABS	3	F	ac / dc	5.0 mm	YANTAI
QILU422 (E4303)	ABS	3	All	ac / dc	3.2 - 4.0 mm	YANTAI

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
CHINA, PEOPLES REPUBLIC OF						
Zibo Qilu Welding Industry Co., Ltd.						
QILU427 (E4315)	ABS	3	All	dcep	3.2 - 4.0 mm	YANTAI
QILU506 (E5016, AWS E7016)	ABS	3Y	All	ac / dc	3.2 - 4.0 mm	YANTAI
QILU506 (E5016, AWS E7016)	ABS	3Y	F	ac / dc	5.0 mm	YANTAI

COLOMBIA

Lincoln Soldaduras De Colombia LTDA

As Welding E-6011	ABS	2	All	ac / dc	3/32 - 3/16"	CARTAGENA
As Welding E-6013	ABS	2	All	ac / dc	3/32 - 3/16"	CARTAGENA
As Welding E-7018	ABS	3Y	All	dcep	3/32 - 5/32"	CARTAGENA
Gricon 15 E-7018	ABS	3Y	All	dcep	3/32 - 5/32"	CARTAGENA
Gricon 29 E-6010	ABS	2	All	dcen	3/32 - 3/16"	CARTAGENA
Gricon 290 E-6011	ABS	2	All	ac / dc	3/32 - 3/16"	CARTAGENA
Gricon 33 E-6013	ABS	1	All	ac / dc	3/32 - 3/16"	CARTAGENA

Soldaduras West Arco LTDA

ACP 611 SS	ABS	2	All, V-down	ac / dcep	2.4 - 6.4 mm	CARTAGENA
Super SW613	ABS	1	All, V-down	ac / dc	2.4 - 4.8 mm	CARTAGENA
SW-10	ABS	1	All, V-down	ac / dc	2.4 - 6.4 mm	CARTAGENA
SW-613	ABS	1	All, V-down	ac / dc	2.4 - 6.4 mm	CARTAGENA
WIZ 18	ABS	3Y	All	ac / dcep	2.4 - 6.4 mm	CARTAGENA
WIZ 718 W1	ABS	3Y	All	ac / dcep	2.4 - 4.8 mm	CARTAGENA
WIZ 818 C3	ABS	3Y	All	ac / dcep	2.4 - 4.8 mm	CARTAGENA
XL-610	ABS	2	All, V-down	dcep	2.4 - 6.4 mm	CARTAGENA
XL-810G	ABS	2	All, V-down	dcep	2.4 - 4.8 mm	CARTAGENA
ZIP-10T	ABS	2	All, V-down	dcep	2.4 - 6.4 mm	CARTAGENA
ZIP-14	ABS	1	All, V-down	ac / dc	2.4 - 6.4 mm	CARTAGENA
ZIP-24	ABS	1	F	ac / dc	2.4 - 6.4 mm	CARTAGENA
ZIP-710 A1	ABS	2	All, V-down	dcep	2.4 - 4.8 mm	CARTAGENA

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
CROATIA						
Elektroda Zagreb						
EZ-11F	ABS	2	All	ac / dcen	2.0 - 5.0 mm	RIJEKA
EZ-130	ABS	2Y*	F	ac / dcen	4.0 - 6.0 mm	RIJEKA
*Non-low hydrogen electrode; requires special approval for use on higher-strength steel.						
EZ-180R	ABS	2	All	ac / dcen	4.0 - 5.0 mm	RIJEKA
EZ-50B	ABS	3Y	All	ac / dcep	2.5 - 6.0 mm	RIJEKA
EZ-8 RC	ABS	2	All, V-down	ac / dcen	2.0 - 4.0 mm	RIJEKA
EZ-KROM 10R (308L-16)	**	**	All	ac / dcep	2.5 - 4.0 mm	RIJEKA
**Manufacturer's guaranteed composition & properties: wt% maximum 0.04 C, 2.0 Mn, 0.03 P, 0.025 S, 1.2 Si; nominal 9 Ni, 18-21 Cr; Rp 0.2 320 N/mm2; Rm 510 N/mm2						
EZ-KROM 30R (316L-16)	**	**	All	ac / dcep	2.5 - 4.0 mm	RIJEKA
**Manufacturer's guaranteed composition & properties: wt% maximum 0.04 C, 2.0 Mn, 0.03 P, 0.025 S, 1.2 Si; 10-13 Ni, 17-20 Cr, 2.5 - 3.0 Mo; Rp 0.2 320 N/mm2; Rm 510 N/mm2						
EZ-KROM 40R (309MoL-16)	**	**	All	ac / dcep	2.5 - 4.0 mm	RIJEKA
**Manufacturer's guaranteed composition & properties: wt% maximum 0.04 C, 2.5 Mn, 0.030 P, 0.025 S, 1.2 Si; 11-14 Ni, 22-25 Cr, 2.0 - 3.0 Mo; Rp 0.2 350 N/mm2; Rm 550 N/mm2						

CYPRUS

A. Epiphaniou Industries Ltd.

Intercito 7018	ABS	3Y	All	ac / dcep	2.0 - 5.0 mm	PIRAEUS
Manual arc mild steel low hydrogen electrode						
Intercord M	ABS	2	All	ac / dcen	2.0 - 5.0 mm	PIRAEUS
Manual arc rutile coated electrode						
Interfixe	ABS	1	All	ac / dcep	1.6 - 5.0 mm	PIRAEUS
Manual arc rutile coated electrode						

ECUADOR

AGA S.A.

B-10	AWS A5.1-04	E7018	All	ac / dcep	3/32 - 3/16 in.	GUAYAQUIL
C-13	AWS A5.1-04	E6011	All	ac / dcep	3/32 - 3/16 in.	GUAYAQUIL
R-10	AWS A5.1-04	E6013	All	ac / dc	3/32 / 3/16 in.	GUAYAQUIL

EGYPT

EGYPTIAN SWEDISH WELDING COMPANY

ES 308	AWS A5 .4.92	E 308L	All	dcep	2.5 - 5.0 mm	ALEXANDRIA
ES 55.00	SMAW	3Y*	All	dc	2.5 - 5.0 mm	ALEXANDRIA

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
EGYPT						
EGYPTIAN SWEDISH WELDING COMPANY						
ES316	AWS A5 .4.92	E316L-16	All	ac/dcep	2.5 - 5.0 mm	ALEXANDRIA
ES47.00	SMAW	3Y	All	dc	2.5 - 5.0 mm	ALEXANDRIA
ES7010	SMAW	3Y	All,V- DOWN	dc	2.5 - 5.0 mm	ALEXANDRIA
Elkadesia Engineering Industries						
Elkadesia 7018I - E7018	ABS	3Y400	All	dcep	2.5 - 5.0 mm	CAIRO
Elkadesia 7018M E7018-1	ABS	4Y400 H5	ALL, EXCEPT V DOWN	dcep	2.5 - 5.0 mm	CAIRO
Elkadesia CEL70 (E7010-G, P1)	ABS	3Y400	All	dcen	3.25 - 5.0 mm	CAIRO
Elkadesia CEL80 (E8010-G, P1)	ABS	3Y400	All	dcen	3.25 - 5.0 mm	CAIRO
Elkadesia EV60 (E8018-G, C3)	ABS	3Y400 H10	All except V down	dcep	2.5 - 5.0 mm	CAIRO
Elkadesia OHVI - E6013	ABS	3Y	All	dcep	2.5 - 5.0 mm	CAIRO
Oerlikon Egypt for Electrodes and Welding Equipment						
Fincito E	ABS	3Y*	All	dcep	2.5 - 5.0 mm	CAIRO
*Non low-hydrogen electrode, requires special approval for use on higher strength steel.						
Fincord (M) E	ABS	2	All	dcen	2.5 - 5.0 mm	CAIRO
Overcord E	ABS	1	All, V-down	dcen	2.5 - 5.0 mm	CAIRO
FRANCE						
Air Liquide Welding France (Oerlikon Brand) - Chalons en Champagne						
Citocord	ABS	3	All	ac / dcen	2.0 - 5.0 mm	MULHOUSE
Citorapid	ABS	3	All	ac / dcen	2.0 - 6.0 mm	MULHOUSE
Citorex	ABS	3	All	ac / dcen	2.5 - 5.0 mm	MULHOUSE
Molycord Kb		**	All	dcep	2.5 - 6.0 mm	MULHOUSE
**For boiler steel applications only Mo 0.37, C 0.06.						
OE - CRYO 55	AWS A5.5	E8018-C1	All	ac / dcep	2.5 - 6.3 mm	MULHOUSE
Overcord R10	ABS	2	All, V-down	ac / dcen	2.0 - 5.0 mm	MULHOUSE
Overcord R12	ABS	2	All	ac / dcen	1.6 - 6.3 mm	MULHOUSE
Overcord Z	ABS	2	All, V-down	ac / dcen	2.0 - 4.0 mm	MULHOUSE
Supercito 7018S	ABS	3Y	All	ac / dcep	2.5 - 6.3 mm	MULHOUSE
Supercord 14	ABS	2	All	ac / dcen	1.6 - 5.0 mm	MULHOUSE

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
FRANCE						
Air Liquide Welding France (Oerlikon Brand) - Chalons en Champagne						
Supranel SR	AWS A5.11-97	ENiCrFe-2**	All	dcep	2.5 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 65 J at -196 °C.						
Supranox 308 L	AWS A5.4	E308L-16**	All	ac . dcep	2.0 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 35 J at -101 °C.						
Supranox 308LP	AWS A5.4	E308L-16**	All	ac . dcep	2.0 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 35 J at -101 °C.						
Supranox 309 L	AWS A5.4	E309L-15**	All	ac / dcep	2.0 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 30 J at -101 °C.						
Supranox 309 LP	AWS A5.4	E309L-15**	All	ac / dcep	2.0 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 30 J at -101 °C.						
Supranox 316 L	AWS A5.4	E316L-16**	All	ac / dcep	1.6 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 30 J at -101 °C.						
Supranox 316 LP	AWS A5.4	E316L-16**	All	ac / dcep	1.6 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 30 J at -101 °C.						
Supranox E22.9.3.N	AWS A5.4	E2209**	F	ac / dcep	2.5 - 4.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: 800 MPa min. tensile strength, 700 MPa min. yield strength, 22% min. elongation, CVN 35 J at -20 °C						
Tenacito 38R**	ABS	3Y	All	dcep	2.5 - 6.0 mm	MULHOUSE
**Intended to be used with higher strength steel 15 Mn, Ni 63.						
Tenacito 65R	AWS A5.5-06	E9018-G	All	dcep	2.5 - 6.0 mm	MULHOUSE
Tenacito 70	ABS	3Y	All	dcep	2.5 - 6.0 mm	MULHOUSE
Tenacito 80	AWS A5.5-06	E11018-G	All	dcep	2.5 - 6.0 mm	MULHOUSE
Tenacito 80CL	ABS	5YQ690	All	dcep	4.0 - 5.0 mm	MULHOUSE
Tenacito R	ABS	3Y	All	dcep	2.5 - 6.0 mm	MULHOUSE
Tenax CY 17	ABS	3Y	All	ac / dcep	2.5 - 6.3 mm	MULHOUSE

Air Liquide Welding France (SAF-FRO Brand) -Chalons en Champagne

Lexal E22.9.3.N	AWS A5.4	E2209**	F	ac / dcep	2.5 - 4.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: 800 MPa min. tensile strength, 700 MPa min. yield strength, 22% min. elongation, CVN 35 J at -20 °C						
Safer G 47 N	ABS	2	All	ac / dcen	1.6 - 5.0 mm	MULHOUSE
Safer G 48 N	ABS	2	All	ac / dcen	1.6 - 6.3 mm	MULHOUSE
Safer G 53	ABS	2	All, V-down	ac / dcen	2.0 - 5.0 mm	MULHOUSE
Safer GTI	ABS	3	All	ac / dcen	2.0 - 5.0 mm	MULHOUSE
Safer MD 56	AWS A5.5-96	E8018-G	All	ac / dcep	2.5 - 6.3 mm	MULHOUSE
Safer NF 510	ABS	3Y	All	ac / dcep	2.5 - 6.3 mm	MULHOUSE

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
FRANCE						
Air Liquide Welding France (SAF-FRO Brand) -Chalons en Champagne						
Safer NF 510A	ABS	3Y	All	ac / dcep	2.5 - 6.3 mm	MULHOUSE
Safer NF 58	ABS	3Y	All	ac / dcep	2.5 - 6.3 mm	MULHOUSE
Safer Ni 55	AWS A5.5	E8018-C1	All	ac / dcep	2.5 - 6.3 mm	MULHOUSE
Safinel 625	AWS A5.11	ENiCrMo-3**	All	dcep	2.0 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 64 J at 20°C and 56 J at -196°C.						
Safinox BNC 75 15 M	AWS A5.11-97	ENiCrFe-2**	All	dcep	2.5 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 65 J at -196°C.						
Safinox R 308 L	AWS A5.4	E308L-16**	All	ac / dcep	2.0 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 35 J at -101°C.						
Safinox R 309 L	AWS A5.4	E309L-15**	All	ac / dcep	2.0 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 30 J at -101°C.						
Safinox R 316 L	AWS A5.4	E316L-16**	All	ac / dcep	1.6 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 30 J at -101°C.						
Safinox R2412 S	AWS A5.4	E309L-15**	All	ac / dcep	2.0 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 30 J at -101°C.						
Starinox 18.8.3.S	AWS A5.4	E316L-16**	All	ac / dcep	1.6 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 30 J at -101°C.						
Starinox 18.8.S	AWS A5.4	E308L-16**	All	ac . dcep	2.0 - 5.0 mm	MULHOUSE
**Manufacturer's guaranteed properties: CVN 35 J at -101°C.						

Filarc Soudage S.A.

For listing of Filarc filler metals, see Filarc / Esab Mor Kft., Hungary

GERMANY

Böhler Schweißtechnik Deutschland GmbH

Firma 5520	ABS	3Y	All	dcep	2.5 - 5.0 mm	HAAN
Firma 5520K	ABS	3 H5	All	dcep	2.5 - 5.0 mm	HAAN
Fox CM 2 Kb	ABS	^	F, V, H	dcep	2.0 - 5.0 mm	HAAN
^ Intended for use with low alloy / high temp. steels, subject to special approval with each application.						
Fox DCMS Kb		**	All	dcep	2.5 - 6.0 mm	HAAN
**Intended for use with low alloy, high-temperature steels.						
Fox DCMS Ti		Cr 0.8/1.2; Mo 0.45/0.65		ac / dcen	2.5 - 6.0 mm	HAAN
Fox DMO Kb		**	All	dcep	2.5 - 6.0 mm	HAAN
**Intended for use with low alloy, high-temperature steels.						

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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GERMANY

Böhler Schweisstechnik Deutschland GmbH

Fox EV 51	ABS	3Y	All	dcep	2.5 - 5.0 mm	HAAN
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Fox HL 140 Ti	ABS	2Y*	F	ac / dcen	3.25 - 5.0 mm	HAAN
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*Non-low hydrogen electrode, requires special approval for use on higher-strength steel.

Fox HL 150 Ti	ABS	2	F	ac / dcen	3.25 - 5.0 mm	HAAN
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Fox HL 160 Ti	ABS	2Y*	F	ac / dcen	3.25 - 5.0 mm	HAAN
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*Non-low hydrogen electrode, requires special approval for use on higher-strength steel.

Fox MST	ABS	2	All, V-down	ac / dcen	1.75 - 5.0 mm	HAAN
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Fox SPE	ABS	2	All	ac / dcen	2.5 - 5.0 mm	HAAN
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Fox SPEM	ABS	2	All	ac / dcen	2.5 - 5.0 mm	HAAN
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Fox SUS	ABS	2	All	ac / dcen	2.5 - 5.0 mm	HAAN
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Fox U80N		Ni 2.6, Mo 0.30, Mn 0.90		dcep	3.25 - 5.0 mm	HAAN
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Manufacturer's guaranteed min. properties: Y.S. 570 N/mm², T.S. 650-750 N/mm², El. 20%, CVN 34 J at -60 °C.

Hera Blau N	ABS	2	All, V-down	ac / dcen	2.0 - 5.0 mm	HAAN
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Hera Rot N	ABS	2Y*	All, V-down	ac / dcen	3.2 - 5.0 mm	HAAN
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* Non-low hydrogen electrode, requires special approval for use on higher-strength steel.

Kestra Fe R 160	ABS	2Y*	F	ac / dc	3.25 - 6.0 mm	HAAN
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*Suitable for use with semi-automatic fillet welding. Non-low hydrogen electrode, requires special approval for use on higher strength steel.

Kestra Fe Ti 160	ABS	2	F	ac / dcen	3.25 - 6.0 mm	HAAN
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Kestra Kb SE	ABS	3Y	All	ac / dcep	2.5 - 6.3 mm	HAAN
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Magna 5410S	ABS	2	All	ac / dcen	1.75 - 5.0 mm	HAAN
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Phoenix 120K	ABS	3Y	All	ac / dcep	2.5 - 6.0 mm	HAAN
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Phoenix 120K	AWS A5.1-04	E7018-1	All	ac / dcep	2.5 - 6.0 mm	HAAN
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Phoenix 6013	ABS	2	All	ac / dcen	2.0 - 5.0 mm	HAAN
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Phoenix 7018	ABS	3Y	All	ac / dcep	2.5 - 6.0 mm	HAAN
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Phoenix Blau	ABS	2Y*	All, V-down	ac / dcen	2.5 - 5.0 mm	HAAN
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*Non-low hydrogen electrode, requires special approval for use on higher-strength steel.

Phoenix Blau	AWS A5.1-04	E6013*	All, V-down	ac / dcen	2.5 - 5.0 mm	HAAN
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*Non-low hydrogen electrode, requires special approval for use on higher strength steel.

Phoenix CEL 70	AWS A5.1-04	E6010			2.5 - 5.5 mm	HAAN
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Phoenix CEL 80	AWS A5.5-06	E8010-P1			3.25 - 5.5 mm	HAAN
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Phoenix Grün T	ABS	2	All	ac / dc	1.5 - 6.0 mm	HAAN
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Phoenix Grün T	AWS A5.1-04	E6013	All	ac / dc	1.5 - 6.0 mm	HAAN
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Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
GERMANY						
Böhler Schweisstechnik Deutschland GmbH						
Phoenix K 50	ABS	3 H10	All	ac / dcep	3.25 - 6.0 mm	HAAN
Phoenix K50R	ABS	3Y	All	ac / dcep	2.0 - 4.0 mm	HAAN
Phoenix Rot AR 160	ABS	2Y*	F	ac / dc	3.25 - 6.0 mm	HAAN
*Suitable for use with semi-automatic fillet welding. Non-low hydrogen electrode, requires special approval for use on higher strength steel.						
Phoenix Rot BR 160	ABS	3Y*	F	ac / dc	4.0 - 6.0 mm	HAAN
*Non-low hydrogen electrode, requires special approval for use on higher-strength steel.						
Phoenix Rot R 160	ABS	2	F	ac / dcen	3.25 - 6.0 mm	HAAN
Phoenix Rot R 160	AWS A5.1-04	E7024-1	F	ac / dcen	3.25 - 6.0 mm	HAAN
Phoenix Rot R 160S	ABS	2	F	ac / dcen	3.25 - 6.0 mm	HAAN
Phoenix SH Gelb B	ABS	3 H15	All	ac / dcen	2.5 - 6.0 mm	HAAN
Phoenix SH Gelb R	ABS	3Y*	All	ac / dcen	2.5 - 5.0 mm	HAAN
*Non-low hydrogen electrode, requires special approval for use on higher-strength steel.						
Phoenix SH Gelb T	ABS	3	All**	dcen	2.5 - 5.0 mm	HAAN
**Adaptable for gravity type welding for horizontal fillets.						
Phoenix SH Grün K70	ABS	3Y	All	ac / dcep	2.5 - 6.0 mm	HAAN
Phoenix SH Multifler 130	ABS	2	F	ac / dcen	3.25 - 5.0 mm	HAAN
Phoenix SH Multifler 180	ABS	2	F	ac / dcep	3.25 - 6.0 mm	HAAN
Phoenix SH Ni 2K 100	AWS A5.5-06	E11018G			3.25 - 5.0 mm	HAAN
Phoenix SH Ni 2K 70			F, V	dcep	3.25 - 5.0 mm	HAAN
*2% Nickel electrode for use with low temp. steels. Manufacturer's guaranteed min. properties: T.S. 50 kgf/mm ² , Y.S. 39 kgf/mm ² , El. 20%, CVN 4.8 kgm at -60 °C.						
Phoenix SH Ni 2K 80	AWS A5.5-06	E7016-C2L		dcep	3.25 - 5.0 mm	HAAN
Phoenix SH Schwarz 3K	ABS	3 H15	All	dcep	3.25 - 6.0 mm	HAAN
Phoenix SH Schwarz 3MK	ABS	3 H15	All	dcep	3.25 - 6.0 mm	HAAN
Phoenix SHV 1	ABS	4YQ460 H10	All	dcep	2.5 - 5.0 mm	HAAN
Phoenix Spezial D	ABS	3Y	All	ac / dcep	2.5 - 6.3 mm	HAAN
Rekord Z508	ABS	2	All, V-down	ac / dcen	1.75 - 5.0 mm	HAAN
Thermanit 22/09 W	AWS A5.4-06	E2209-17		dcep	2.5 - 5.0 mm	HAAN
For duplex stainless (UNS 31803) & welding same to C/Mn steels. Test temp.: -30°C						
Thermanit 625	AWS A5.11-05	ENiCrMo-3		dcep	2.5 - 5.0 mm	HAAN
Universal 5113	ABS	2	All	ac / dcen	2.0 - 5.0 mm	HAAN

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See also Böhler Schweisstechnik Austria GmbH. The manufacturer is qualified in accordance with ABS Quality Assurance Approval

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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GERMANY

Kjellberg Elektroden und Maschinen GmbH

Garant	ABS	3Y	All, V-down	dcep	2.0 - 6.0 mm	HAMBURG
Garant (K)	ABS	4Y	All	dcep	2.0 - 6.0 mm	HAMBURG

UTP Schweissmaterial, Zweigniederlassung der BSDG

Comet J50N	ABS	3Y	All	ac / dcep	2.0 - 5.0 mm	HAAN
Primafixe	ABS	2	All, V-down	ac / dcep	4.0 - 6.3 mm	HAAN
Soudocrom L309L	AWS A5.4-06	E309L-17**		ac / dcep	2.0 - 5.0 mm	HAAN

**Intended for use with austenitic corrosion resistant steels, subject to special approval with each application. Manufacturer's guaranteed min. properties: YS 420 N/mm², TS 550 N/mm², EL 30%, CVN 47J at +20°C

Soudocrom L309Mo	AWS A5.4-06	E308MoL-17		ac / dcep	2.0 - 5.0 mm	HAAN
UTP 068 HH		*ENiCr-Fe-3	F		2.5 - 5.0 mm	HAAN

**Physical properties conform to AWS A5.11-05 ENiCrFe-3.

UTP 612	ABS	2	All, V-down	ac / dcep	3.2 - 4.0 mm	HAAN
UTP 613 Kb	ABS	4Y H5	All	dcep	2.0 - 5.0 mm	HAAN
UTP 614 Kb	ABS	3Y	All	ac/dcep	2.0 - 5.0 mm	HAAN
UTP 6222 Mo	AWS A5.11	ENiCrMo-3		dcep	2.5 - 5.0 mm	HAAN
UTP 68	AWS A5.4-06	E347-17		ac / dcep	1.5 - 5.0 mm	HAAN
UTP 68 LC	AWS A5.4-06	E308L-17		ac / dcep	1.5 - 5.0 mm	HAAN
UTP 68 MoLC	AWS A5.4-06	E316L-17*		ac / dcep	1.5 - 5.0 mm	HAAN
UTP 80 M	AWS A5.11-05	ENiCu-7			2.5 - 5.0 mm	HAAN

*Intended for use with austenitic corrosion resistant steels. Subject to special approval with each application.

GREECE

Erlikon Wire Processing S.A.

Ferrocito-R; AWS A5.1 E7024	ABS	2	F	ac / dcep	2.0 - 5.0 mm	PIRAEUS
Fincord-M; AWS A5.1 E6013	ABS	2	All	ac / dcep	2.0 - 5.0 mm	PIRAEUS
MGPO; AWS A5.1 E6013	ABS	2	All	ac / dcep	2.0 - 5.0 mm	PIRAEUS
MLH; AWS A5.1 E7018	ABS	3Y H5	All	ac / dcep	2.0 - 5.0 mm	PIRAEUS
Navacito; AWS A5.1 E6013	ABS	3	All	ac / dcep	2.0 - 5.0 mm	PIRAEUS
Overcord-S; AWS A5.1 E6013	ABS	2	All	ac / dcep	2.0 - 5.0 mm	PIRAEUS
Rex; AWS A5.1 E6013	ABS	2	All	ac / dcep	2.0 - 5.0 mm	PIRAEUS

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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GREECE

Erlikon Wire Processing S.A.

Supercito; AWS A5.1 E7018	ABS	3Y H5	All	ac / dcep	2.0 - 5.0 mm	PIRAEUS
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HUNGARY

Esab-Mor KFT

Citobasico	ABS	4Y H5	All	ac / dc	2.5 - 5.0 mm	RIJEKA
E-B 121	ABS	3	All	dcep	2.0 - 5.0 mm	RIJEKA
E-B 125	ABS	3Y	All	dcep	2.0 - 5.0 mm	RIJEKA
Filarc 36D	ABS	3Y	All	ac / dc	2.0 - 5.0 mm	RIJEKA
Filarc 48	ABS	2	All, V-down	ac / dcen	2.0 - 4.0 mm	RIJEKA
Filarc 68	ABS	2	All, V-down	ac / dcen	2.5 - 5.0 mm	RIJEKA
Fortrex 7018	ABS	3Y	All	dcep	2.5 - 5.0 mm	RIJEKA
Navalend 25	ABS	2	All	ac / dc	2.0 - 5.0 mm	RIJEKA
Navalend 30	ABS	2	All, V-down	ac / dc	2.0 - 4.0 mm	RIJEKA
OK 43.32	ABS	2	All	ac / dc	2.0 - 6.0 mm	RIJEKA
OK 46.00	ABS	2	All	ac / dc	2.0 - 5.0 mm	RIJEKA
OK 46.06	ABS	2	All	ac / dc	2.0 - 4.0 mm	RIJEKA
OK 46.16	ABS	2	All	ac / dcen	2.0 - 5.0 mm	RIJEKA
OK 46.44	ABS	2	All	ac / dc	2.0 - 4.0 mm	RIJEKA
OK 46.64	ABS	2	All, V-down	ac / dc	2.0 - 5.0 mm	RIJEKA
OK 48.00	ABS	3Y H5	All	dcep	2.0 - 5.0 mm	RIJEKA

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
HUNGARY						
Esab-Mor KFT						
OK 48.05	ABS	3Y H5	All	dcep	2.0 - 5.0 mm	RIJEKA
OK 48.17	ABS	3Y	All	ac / dc	2.0 - 5.0 mm	RIJEKA
OK 48.30	ABS	3Y	All	dcep	2.0 - 5.0 mm	RIJEKA
OK 48.50	ABS	3Y H5	All	ac / dc	2.5 - 5.0 mm	RIJEKA
OK 48.50T	ABS	4Y H5	All	ac / dc	2.5 - 5.0 mm	RIJEKA
OK 48.60	ABS	3Y H5	All	dcep	2.0 - 5.0 mm	RIJEKA
OK 53.00	ABS	3Y	All	ac / dc	2.0 - 5.0 mm	RIJEKA
OK 53.05	ABS	3Y	All	ac / dc	2.0 - 5.0 mm	RIJEKA
OK 53.16 Special	ABS	3Y	All	ac / dcen	2.0 - 5.0 mm	RIJEKA
OK 55.00	ABS	3Y H5	All	dcep	2.0 - 5.0 mm	RIJEKA
OK 55.10	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	RIJEKA
OK Femax 33.80	ABS	2	F	ac / dcep	3.2 - 5.0 mm	RIJEKA
Tensilend 48	ABS	3Y H5	All	ac / dc	2.5 - 5.0 mm	RIJEKA
Vodex	ABS	3	All	ac / dcep	2.0 - 5.0 mm	RIJEKA
Vortic Marine	ABS	3	All	ac / dc	2.5 - 5.0 mm	RIJEKA
Zodian Universal	ABS	2	All	ac / dc	2.5 - 5.0 mm	RIJEKA

INDIA

Ador Welding Ltd. (Chennai)

Magnabond	ABS	2	All, V-down	ac / dcen	2.5 - 5.0 mm	CHENNAI
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Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
INDIA						
Ador Welding Ltd. (Chennai)						
Maxbond	ABS	1	All, V-down	ac / dcen	2.5 - 5.0 mm	CHENNAI
Metalbond	ABS	1	All, V-down	ac / dcen	2.5 - 5.0 mm	CHENNAI
Metalbond-S	ABS	2	All, V-down	ac / dcep / dcen	2.5 - 5.0 mm	CHENNAI
Supabase	ABS	3Y	All	ac / dcep	2.0 - 5.0 mm	CHENNAI
Supabase X-Plus	ABS	3Y H5	All	ac / dcep	2.0 - 5.0 mm	CHENNAI
Superbond	ABS	2	All	ac / dcen	2.0 - 5.0 mm	CHENNAI
Superbond-S	ABS	2	All	ac / dcen	1.6 - 5.0 mm	CHENNAI
Tenalloy 38 R (SPL)*	AWS A5.5	E 7018-G H4	All	dcep	2.5 - 5.0 mm	CHENNAI
*Manufacturer's Guarantee: 50 J @ -51 deg C						
Tenalloy 70A-S-Plus	AWS A5.5	E8018-C1H4R	All	dcep	2.5 - 5.0 mm	CHENNAI
Tenalloy 75	AWS A5.5	E10018M H4	All	dcep	2.5 - 5.0 mm	CHENNAI
Tenalloy S Plus	ABS	4Y, 4Y400 H5	All	ac / dcep	2.5 - 5.0 mm	CHENNAI
Tenalloy Z Plus	ABS	4Y, 4Y400 H5	All	ac / dcep	2.5 - 5.0 mm	CHENNAI
Tenalloy Z Plus	AWS A5.1 2007	E7018-1 H4R*	All	dcep	2.5 - 5.0 mm	CHENNAI
*Moisture and diffusable hydrogen content reported is after exposure of the electrodes to an environment of 30 degrees centigrade and 85% RH for 12 Hours.						
X-Bond	ABS	3Y H5	All, V-down	ac / dcep	2.5 - 5.0 mm	CHENNAI
Ador Welding Ltd. (Raipur)						
Magnabond	ABS	2	All, V-down	ac / dcen	2.5 - 5.0 mm	KOLKATA
Maxbond	ABS	1	All, V-down	ac / dcen	2.5 - 5.0 mm	KOLKATA
Metal Bond	ABS	1	All, V-down	ac / dcep / dcen	2.5 - 5.0 mm	KOLKATA
Metalbond-S	ABS	2	All, V-down	ac / dcep / dcen	2.5 - 5.0 mm	KOLKATA
Tenalloy - Z - plus	ABS	4Y,4Y400 H5	All, V-down	ac / dcep	2.5 - 5.0 mm	KOLKATA
X-Bond	ABS	3YH5	All, V-down	ac / dcep	2.5 - 5.0 mm	KOLKATA
Ador Welding Ltd. (Silvassa)						
Celwel-60	ABS	3	All	dcep	2.0 - 5.0 mm	SURAT
Celwel-70G	AWS A5.5	E7010-G	All	dcep	2.0 - 5.0 mm	SURAT
Celwel-80G	AWS A5.5	E8010-G	F, V, OH	dcep	2.0 - 5.0 mm	SURAT
Cromoten	AWS A5.5-96	E8018-B2	All	ac / dcep	2.5 - 5.0 mm	SURAT
Cromoten C	AWS A5.5-96	E9018-B3	All	ac / dcep	2.5 - 5.0 mm	SURAT

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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INDIA

Ador Welding Ltd. (Silvassa)

Molyten	AWS A5.5-96	E7018-A1	All	ac / dcep	2.5 - 5.0 mm	SURAT
Nimoten	AWS A5.5-96	E9018M	All	dcep	2.5 - 5.0 mm	SURAT
Supabase	ABS	3Y H5	All	ac / dcep	2.5 - 5.0 mm	SURAT
Supabase-X-Plus	ABS	3Y H5	All	ac / dcep	2.5 - 5.0 mm	SURAT
Superbond	ABS	2	All	ac / dcep	2.5 - 5.0 mm	SURAT
Superbond-S	ABS	2	All	ac / dcep	2.5 - 5.0 mm	SURAT
Superbond-SS	ABS	2	All	ac / dcep	2.5 - 5.0 mm	SURAT
Tenalloy-16	ABS	3Y H5	All	ac / dcep	2.5 - 5.0 mm	SURAT
Tenalloy-60	AWS A5.5	E8018-G	All	ac	2.0 - 5.0 mm	SURAT
Tenalloy-70 C	AWS A5.5-96	E8018-C3	All	ac / dcep	2.5 - 5.0 mm	SURAT
Tenalloy-75 D2	AWS A5.5	E10018-D2	All	ac / dcep	2.5 - 5.0 mm	SURAT
Tenalloy-80	AWS A5.5-96	E11018M	All	ac / dcep	2.5 - 5.0 mm	SURAT
Tenalloy-Z-Plus	ABS	4Y400 H5	All	ac / dcep	2.5 - 5.0 mm	SURAT
Ultracorten III	AWS A5.5-96	E8018-W2	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
X-Bond	ABS	3Y H5	All, V-down	ac / dcep	2.5 - 5.0 mm	SURAT

Anand Arc Ltd.

Anand S	ABS	2	All	ac / dcep	2.5 - 4.0 mm	MUMBAI
Anand Theme	ABS	3Y	All	ac / dcep	2.5 - 4.0 mm	MUMBAI

D & H Secheron Electrodes Pvt. Ltd. (Dakachya Plant)

Medio	ABS	2	All	ac / dc(+)	2.5 - 5.0 mm	MUMBAI
Norma	ABS	2	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
Supratherme	ABS	3Y	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
Supratherme-SPL	AWS A5.1	E7018-1	All	dcep	2.5 - 5.0 mm	MUMBAI

D & H Secheron Electrodes Pvt. Ltd. (Indore Plant)

Indotherme	ABS	3Y	All	ac / dcep	2.5 - 6.3 mm	MUMBAI
Medio	ABS	2	All	ac / dcep	2.5 - 6.3 mm	MUMBAI
Norma	ABS	2	All	ac / dcep	2.5 - 6.3 mm	MUMBAI
Supratherme	ABS	3Y	All	ac / dcep	2.5 - 6.3 mm	MUMBAI

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
INDIA						
D & H Secheron Electrodes Pvt. Ltd. (Indore Plant)						
Supratherme (SPL) H4R	AWS A5.1-04	E7018-1 H4R	All	ac / dcep	2.5 - 6.3 mm	MUMBAI
D & H Welding Electrodes (India) Ltd.						
Standard	ABS	2	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
Super LH	ABS	3Y H5	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
Dwekam Electrodes Ltd.						
DK-13 S	ABS	2	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
DK-18	ABS	3Y	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
Esab India Ltd. (Chennai)						
Esab 118	AWS A5.5	E 11018-M	All	dcep	2.5 - 5.0 mm	CHENNAI
Esab 120	AWS A5.5	E 12018-M	All	dcep	2.5 - 5.0 mm	CHENNAI
Esab 28	ABS	2	All	ac / dc	2.5 - 5.0 mm	CHENNAI
Esab 36 H SPL	AWS A5.1	E 7018-1	All	dcep	2.5 - 5.0 mm	CHENNAI
Esab 36H	ABS	3Y H5	All	ac / dc	2.5 - 5.0 mm	CHENNAI
Esab 46	ABS	2	All	ac / dc	2.5 - 5.0 mm	CHENNAI
Esab 6013L	ABS	2	All, V-down	ac / dcep	2.5 - 5.0 mm	CHENNAI
Esab 7018	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	CHENNAI
Esab 98	AWS A5.5	E 9018-M	All	dcep	2.5 - 5.0 mm	CHENNAI
Esab Ferroarc	ABS	2	All	ac / dc	2.5 - 5.0 mm	CHENNAI
Esab Ferrospeed Plus	ABS	2	All, V-down	ac / dc	2.5 - 5.0 mm	CHENNAI
Esab Vordian	ABS	2	All	ac / dc	2.5 - 5.0 mm	CHENNAI
OK 73.68	AWS A5.5	E 8018-C1	All	dcep	2.5 - 5.0 mm	CHENNAI
Esab India Ltd. (Kolkata)						
Esab 28	ABS	2	All	ac / dc	2.5 - 5.0 mm	KOLKATA
Esab 36H	ABS	3Y H5	All	ac / dc	2.5 - 5.0 mm	KOLKATA
Esab Ferroarc	ABS	2	All	ac / dc	2.5 - 5.0 mm	KOLKATA
Esab Ferrospeed / E-6012	ABS	1	All	ac / dc	3.15 - 5.0 mm	KOLKATA
Esab Ferrospeed Plus	ABS	2	All	ac / dc	2.5 - 5.0 mm	KOLKATA
Esab Ferroweld 1 / E-7016	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	KOLKATA

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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INDIA

Esab India Ltd. (Kolkata)

Esab Ferroweld 2 / E-7016	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	KOLKATA
Esab Vordian	ABS	2	All	ac / dc	2.5 - 5.0 mm	KOLKATA
Esab Vortex 1 / E-6013	ABS	3	All	ac / dcep / dcen	2.5 - 5.0 mm	KOLKATA

GEE Ltd.

Gricon Black	ABS	2	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
Gricon Blue	ABS	2	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
Gricon Green	ABS	3Y H5	All	ac / dcep	2.5 - 5.0 mm	KOLKATA
Gricon Green SPL	ABS	4Y, 4Y400 H5	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
Gricon Green SPL	AWS A5.1	E7018-1	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
Moisture content reported during H4R approvalis apfer exposure of the electrode to an environment of 29 deg. C and 80% RH for 12 hours.						
Gricon Green SPL H4R	ABS	4Y, 4Y400 H5	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
Gricon Green SPL H4R	AWS A5.1	E7018-1 H4R	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
Moisture content reported during H4R approvalis apfer exposure of the electrode to an environment of 29 deg. C and 80% RH for 12 hours.						
Gricon Pink	ABS	2	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
Griduct 108D2	AWS A5.5	E10018-D2	All	dcep	2.5 - 5.0 mm	MUMBAI
GRIDUCT 8M	AWS A5.5	E11018M	All	dcep	2.5 - 5.0 mm	MUMBAI
GRIDUCT 98M	AWS A5.5	E9018M	All	dcep	2.5 - 5.0 mm	MUMBAI

Honavar Electrodes Limited

Regular S	ABS	2	F	ac / dcen	5.0 mm	MUMBAI
Regular S	ABS	2	All	ac / dcen	2.5 - 4.0 mm	MUMBAI
Ultimate 18	ABS	3Y H5	F	ac / dcep	5.0 - 6.3 mm	MUMBAI
Ultimate 18	ABS	3Y H5	All	ac / dcep	2.5 - 4.0 mm	MUMBAI

M/S Modi Arc Electrodes Co.

Modi - 7018	ABS	3Y H5	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
Steelon Ultra	ABS	2	All	ac / dcep	2.5 - 5.0 mm	MUMBAI

M/S Raajratna Electrodes Pvt. Ltd.

Ratna 6013X	ABS	2	All	ac / dcen	2.5 - 5.0 mm	SURAT
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Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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INDIA

M/S Raajratna Electrodes Pvt. Ltd.

Ratna 7018	ABS	4T400 H5	All	ac / dcep	2.5 - 5.0 mm	SURAT
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M/S Royal Arc Electrodes Limited

Royal Therm SPL	ABS	4Y H5	All	ac / dce9	2.5 - 5.0 mm	MUMBAI
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M/S Voltarc Electrodes Private Ltd.

Smootharc	ABS	2	All	ac / dc	2.0 - 5.0 mm	CHENNAI
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Superarc	ABS	3Y	All	ac / dcep	2.5 - 5.0 mm	CHENNAI
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M/S Weldwell Electrodes

Weldfast LH 18	ABS	3Y H5	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
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Weldfast Quality	ABS	2	All	ac / dcen	2.5 - 5.0 mm	MUMBAI
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Weldfast Super	ABS	1	All	ac / dcen	2.5 - 5.0 mm	MUMBAI
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Magnarc Electrodes Pvt. Ltd.

Magnarc-63	ABS	2	All, V-down	ac/ dcep	2.5- 5.0 mm	VISAKHAPATNAM
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Magnarc-LH	ABS	3Y	All	ac/ dcep	2.5- 5.0 mm	VISAKHAPATNAM
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Mailam India Ltd.

Mailarc 13 R	ABS	2	All	ac / dc	2.0 - 5.0 mm	CHENNAI
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Mailarc 18	AWS A5.1-04	E7018 H4R**	All	ac / dcep	2.0 - 5.0 mm	CHENNAI
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**Moisture content reported during H4R approval is after exposure of the electrodes to an environment of 30°C and 85% RH for 12 hours.

Mailarc 18PLUS	AWS A5.1-04	E7018 H4R**	All	ac / dcep	2.0 - 5.0 mm	CHENNAI
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**Moisture content reported during H4R approval is after exposure of the electrodes to an environment of 30°C and 85% RH for 12 hours.

Mailarc-18	ABS	4Y H5, 4Y400 H5	All	ac / dcep	2.0 - 5.0 mm	CHENNAI
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Mailarc-18PLUS	ABS	4Y H5, 4Y400 H5	All	ac / dcep	2.0 - 5.0 mm	CHENNAI
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Rasi Electrodes Limited

Rasi 316L-16	AWS A5.4	E316L-16	All	dcep	2.0 - 5.0 mm	CHENNAI
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Rasi E 6013	ABS	2	All, V-down	ac / dcen	2.5 - 5.0 mm	CHENNAI
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Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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INDIA

Rasi Electrodes Limited

Rasi E 7018 LH	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	CHENNAI
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Royal Arc Electrodes Pvt. Ltd.

Royal Therm	ABS	3Y H5	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
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Royal Therm SPL	ABS	4Y H5	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
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Royal-S	ABS	2	All	ac / dcen	2.5 - 5.0 mm	MUMBAI
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Royal Welding Wires Pvt., Ltd.

Jacksun 18H	ABS	3Y H5	All	ac / dc	2.5 - 5.0 mm	CHENNAI
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Jacksun-5	ABS	2	All, V-down	ac / dc	2.5 - 5.0 mm	CHENNAI
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Superon Schweisstechnik India Ltd.

Overcord S	ABS	2	All	ac / dcep / dcen	2.5 - 5.0 mm	MUMBAI
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Supercito	ABS	3Y400 H5	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
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Uniweld Electrodes Ltd.

Captain 6013	ABS	2	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
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Varun Electrodes Pvt., Ltd.

Prima 6013 S	ABS	2	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
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Prima 7018	ABS	3Y H5	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
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Weld Alloy Products

WA-7018	ABS	4Y H5, 4Y400 H5	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
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WA-7018	AWS A5.1-2004	E7018-1 H4R**	All	ac / dcep	2.5 - 5.0 mm	MUMBAI
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**Moisture content reported during H4R approval is after exposure of electrodes to an environment of 30C and 85% RH for 12 hours.

INDONESIA

P.T. Alam Lestari Unggul

Nikko Steel C-11	ABS	3	All	ac / dc	2.0 - 4.0 mm	JAKARTA
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Nikko Steel I-10	ABS	2	All	ac / dc	2.0 - 5.0 mm	JAKARTA
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Nikko Steel RC-8 / AWS A5.1 E6010	ABS	2	All	ac / dc	2.0 - 5.0 mm	JAKARTA
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Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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INDONESIA

P.T. Alam Lestari Unggul

Nikko Steel RD -260	ABS	2	All	ac / dc	2.0 - 5.0 mm	JAKARTA
Nikko Steel RD- 460	ABS	2	All	ac / dc	2.0 - 5.0 mm	JAKARTA
Nikko Steel RD-718	ABS	3Y	All	ac / dc	2.0 - 5.0 mm	JAKARTA

P.T. Bohler Welding South East Asia

2205-3D	AWS A5.4-92	E2209-17	All	ac / dc	2.0 - 4.0 mm	JAKARTA
308L/MVR	AWS A5.4-92	E308L-17	All	ac / dc	2.5 - 5.0 mm	JAKARTA
309L-17	AWS A5.4-92	E309L-17	All	ac / dc	2.5 - 5.0 mm	JAKARTA
316L/SKR	AWS A5.4-92	E316L-17	All	ac / dc	2.5 - 5.0 mm	JAKARTA
Avesta Welding LDX-2101	AWS A5.4	E2209-17	All	ac / dc	2.5 - 4.0 mm	JAKARTA
Bohler Fox S EV 50	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	JAKARTA
Bohler Fox S EV 50-1	ABS	4Y H5	All	dcep	2.5 - 5.0 mm	JAKARTA
E308L-16	AWS A5.4	E308L-16	All	ac / dc	2.5 - 4.0 mm	JAKARTA
E309L-16	AWS A5.4	E309L-16	All	ac / dc	2.5 - 4.0 mm	JAKARTA
E316L-16	AWS A5.4	E316L-16	All	ac / dc	2.5 - 4.0 mm	JAKARTA
P5	AWS A5.4-92	E309 MoL-17	All	ac / dc	2.5 - 5.0 mm	JAKARTA
Radnor E308L-16	AWS A5.4	E308L-16	All	ac / dc	2.5 - 4.0 mm	JAKARTA
Radnor E309L-16	AWS A5.4	E309L-16	All	ac / dc	2.5 - 4.0 mm	JAKARTA
Radnor E316L-16	AWS A5.4	E316L-16	All	ac / dc	2.5 - 4.0 mm	JAKARTA
Thermanit S 25/14 EW 309L-17	AWS A5.4-92	E309L-17	All	ac / dc	2.5 - 5.0 mm	JAKARTA

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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INDONESIA

P.T. Bohler Welding South East Asia

Thermanit S GEW 316L-16	AWS A5.4	E316L-16	All	ac / dc	2.0 - 4.0 mm	JAKARTA
Thermanit S GEW 316L-17	AWS A5.4-92	E316L-17	All	ac / dc	2.5 - 5.0 mm	JAKARTA
Thermanit S JEW 308L-16	AWS A5.4	E308L-16	All	ac / dc	2.0 - 4.0 mm	JAKARTA
Thermanit S JEW 308L-17	AWS A5.4-92	E308L-17	All	ac / dc	2.5 - 5.0 mm	JAKARTA
Thermanit S25/14 EW 309L-16	AWS A5.4	E309L-16	All	ac / dc	2.0 - 4.0 mm	JAKARTA
T-PUT Phoenix 7018	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	JAKARTA
T-PUT Phoenix 7018-1	ABS	4Y H5	All	dcep	2.5 - 5.0 mm	JAKARTA

P.T. Intan Pertiwi Industri

B 17	ABS	3	All	ac / dc	2.6 - 5.0 mm	JAKARTA
Kobe 6010	ABS	2	All	dc	2.6 - 4.0 mm	JAKARTA
LB-26	ABS	3 H15	All	ac / dc	2.6 - 5.0 mm	JAKARTA
LB-52	ABS	3Y / 3Y400	All	ac / dc	2.6 - 5.0 mm	JAKARTA
LB-52 U	ABS	3Y	All	ac / dc	2.6 - 4.0 mm	JAKARTA
LB-5218	ABS	3Y	All	ac / dc	2.6 - 5.0 mm	JAKARTA
RB 26	ABS	2	All	ac / dc	2.6 - 5.0 mm	JAKARTA

P.T. Karya Yasantara Cakti

Esab 4301	ABS	3	All	ac / dc	2.5 - 5.0 mm	JAKARTA
Esab 6013	ABS	2	All	ac / dcep	2.5 - 5.0 mm	JAKARTA
OK 33.80	ABS	2	F	ac / dc	2.5 - 5.0 mm	JAKARTA
OK 46.00	ABS	2	All	ac / dc	2.5 - 5.0 mm	JAKARTA
OK 48.04	ABS	3Y H5	All	ac / dc	2.5 - 5.0 mm	JAKARTA
OK 48.08	ABS	3Y H5	All	ac / dc	2.5 - 5.0 mm	JAKARTA
OK 53.04	ABS	3Y H5	All	ac / dc	2.5 - 5.0 mm	JAKARTA
OK 53.70	ABS	3Y H5	All	ac / dc	2.5 - 4.0 mm	JAKARTA

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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INDONESIA

P.T. Karya Yasantara Cakti

OK 55.00	ABS	3Y H5	All	ac / dc	2.5 - 5.0 mm	JAKARTA
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P.T. Lincoln Electric Indonesia

Easyarc ID 6013	ABS	2Y	All	ac / dcen	2.6 - 5.0 mm	JAKARTA
Easyarc ID 7016 P	ABS	3Y H5	All	ac / dc	2.6 - 5.0 mm	JAKARTA
Easyarc ID 7016-1	ABS	3Y H5	All	ac / dc	2.6 - 5.0 mm	JAKARTA
Easyarc ID 7018	ABS	3Y400 H5	All	ac / dc	2.6 - 5.0 mm	JAKARTA
Easyarc ID 7018-1	ABS	4Y400 H5	All	dcep	2.6 - 5.0 mm	JAKARTA
Easyarc ID 7024	ABS	2Y	F, H	ac / dc	2.6 - 5.0 mm	JAKARTA
Jetweld LH-70	ABS	3Y H5	All	ac / dc	2.6 - 5.0 mm	JAKARTA
Jetweld LH-75 MR	AWS A5.1-04	E7018-1	All	ac / dcep	2.6 - 5.0 mm	JAKARTA
Jetweld-LH 8018-C1	ABS	3Y H5	All	ac / dc	2.6 - 5.0 mm	JAKARTA

P.T. Ontoreja Kanca Sejahtera

N 26 R	ABS	2	All	ac / dc	2.6 - 5.0 mm	JAKARTA
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ISRAEL

Zika Industries Ltd.

Z-11	ABS / AWS A5.1	2 / E6013	All	ac / dcen	2.0 - 5.0 mm	HAIFA
Z-11	EN ISO 2560-A	E 42 0 RR 12	All	ac / dcen	2.0 - 5.0 mm	HAIFA
Z-18	ABS / AWS A5.1	2 / E7024	F	ac / dcen	2.5 - 4.0 mm	HAIFA
Z-18	EN ISO 2560-A	E 42 0 RR 73	F	ac / dcen	2.5 - 4.0 mm	HAIFA
Z-2	ABS / AWS A5.1	3Y / E7018	All	ac / dcep	2.5 - 6.0 mm	HAIFA
Z-2	EN ISO 2560-A	E 42 3 B 32 H10	All	ac / dcep	2.5 - 6.0 mm	HAIFA
Z-20	ABS / AWS A5.1	2 / E7024-1	F	ac / dcen	2.5 - 5.0 mm	HAIFA
Z-20	EN ISO 2560-A	E 42 0 RR 73	F	ac / dcen	2.5 - 5.0 mm	HAIFA
Z-26	ABS / AWS A5.1	2 / E6013	All	ac / dcen	2.0 - 5.0 mm	HAIFA
Z-26	EN ISO 2560-A	E 42 0 RC 11	All	ac / dcen	2.0 - 5.0 mm	HAIFA
Z-3	ABS / AWS A5.5	3Y H5 / E8018-G	All	ac / dcep	2.5 - 6.0 mm	HAIFA
Z-3	EN ISO 2560-A	E 50 2 B 32 H5	All	ac / dcep	2.5 - 6.0 mm	HAIFA
Z-309Mo	AWS A5.4	E309Mo L-16	All	ac / dcep	2.0 - 5.0 mm	HAIFA

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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ISRAEL

Zika Industries Ltd.

Z-309Mo	EN 1600	E 23 12 2 LR 12	All	ac / dcep	2.0 - 5.0 mm	HAIFA
Z-316L	AWS A5.4	E316L-16	All	ac / dcep	2.0 - 5.0 mm	HAIFA
Z-316L	EN 1600	E 19 12 3 LR 12	All	ac / dcep	2.0 - 5.0 mm	HAIFA
Z-4	ABS / AWS A5.1	3YH5 / E7018	All	ac / dcep	2.5 - 6.0 mm	HAIFA
Z-4	EN ISO 2560-A	E 42 3 B 42 H5	All	ac / dcep	2.5 - 6.0 mm	HAIFA
Z-610	ABS / AWS A5.1	2 / E6010	All	dcep	2.5 - 5.0 mm	HAIFA
Z-610	EN ISO 2560-A	E 42 0 C 21	All	dcep	2.5 - 5.0 mm	HAIFA
Z-DIALOGUE-7016	ABS / AWS A5.1	3Y* / E7016	All	ac / dcen	2.5 - 4.0 mm	HAIFA
*Non-low hydrogen electrode; requires special approval for use on higher strength steel						
Z-DIALOGUE-7016	EN ISO 2560-A	E 42 2 B 12 H10	All	ac / dcen	2.5 - 4.0 mm	HAIFA
*Non-low hydrogen electrode; requires special approval for use on higher strength steel						
Z-Ni 112	AWS A5.11	E NiCrMo3	All	ac / dcep	2.5 - 5.0 mm	HAIFA
Z-Ni 112	EN ISO 14172	E Ni6625 / NiCr22Mo9Nb	All	ac / dcep	2.5 - 5.0 mm	HAIFA
Z-Ni 182	AWS A5.11	E NiCrFe3	All	ac / dcep	2.5 - 5.0 mm	HAIFA
Z-Ni 182	EN ISO 14172	E Ni6182 / NiCr15Fe6Mn	All	ac / dcep	2.5 - 5.0 mm	HAIFA
Z-X70	ABS / AWS A5.5	3YQ550* / E 9018-G	All	ac / dcen	2.5 - 4.0 mm	HAIFA
*Non low hydrogen electrode requires special approval for use with higher strength steel.						
Z-X70	EN 757	E 55 2 MnMo B 42 H5	All	ac / dcen	2.5 - 4.0 mm	HAIFA
*Non low hydrogen electrode requires special approval for use with higher strength steel.						

ITALY

Air Liquide Welding France (Oerlikon Brand) - Due Carrare, Italy plant

Cromo E225V*	AWS A5.5	E9015-G	All	dc	3.25 - 4.5 mm	VENICE
*Manufacturer's recommended PWHT: 710 deg C x 8 hrs. Manufacturer's min guaranteed CVN: 27J @ 29 deg C						
ETC PH 35S (Tenax 35S)	ABS	4Y H5	All	ac / dc	2.5 - 6.0 mm	VENICE
ETC PH 35S Dry	ABS	3Y H5*	All	ac / dc	2.5 - 5.0 mm	VENICE
*When packed in producers vacuum packing system (VP) manufacturer's guaranteed diffusable hydrogen content of max 3 ml/100g at whole protection opening , max 5ml/100g 12 hours after protection opening. Manufacturer's min guaranteed CVN 70 J at -50 deg C						
ETC PH 77	ABS	4Y H5	All	ac / dc	2.5 - 5.0 mm	VENICE
Supranox RS 308L	AWS A5.4	E308L-16	All	dcep	2.5 - 5.0 mm	VENICE
Supranox RS 316L	AWS A5.4	E316L-16	All	dcep	2.5 - 5.0 mm	VENICE

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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ITALY

Air Liquide Welding France (Oerlikon Brand) - Due Carrare, Italy plant

Tenacito 80CL		**	All	dcep	2.5 - 3.2 mm	VENICE
**manufacturer's Guaranteed Properties: 690 MPa min Y.S., 770-940 MPa T.S, 17% Min. El., CVN 55J @ -50 Deg C, recommended by manufacturer for welding higher yield strength steels.						
Tenax 118M	AWS A5.5	E11018-M H4	All	dcep	2.5 - 5.0 mm	VENICE
Tenax 55H	ABS	3Y H5	All	ac / dc	2.5 - 5.0 mm	VENICE
Tenax 56S	ABS	4Y H5	All	ac / dc	2.5 - 5.0 mm	VENICE
Tenax 56ST (ETC PH 36 ST)	ABS	4Y H5	All	dc	2.5 - 5.0 mm	VENICE
Tenax 76S	ABS	3Y H5*	All	ac / dc	2.5 - 5.0 mm	VENICE
*Manufacturer's minimum guaranteed CVN 60 J at -60 deg C. Low alloy electrode (Ni 0.60 - 1.00).						
Tenax 88S	ABS	3Y H5	All	dc	2.5 - 5.0 mm	VENICE

Air Liquide Welding France (SAF FRO) - Cittadella, Italy

Tensilefro 2000	ABS	3Y H5*	All	dcep	2.5 - 5.0 mm	VENICE
*Manufacturer's Guaranteed CVN 47J @ -50 deg C						

INE - Industria Nazionale Elettrodi S.p.A.

INE 50 B	ABS	3Y	All	dcep	2.5 - 5.0 mm	VENICE
INE 55 B	ABS	3Y	All	dcep	2.5 - 5.0 mm	VENICE

JAPAN

Kobe Steel Ltd. (Ibaraki Plant)

BL-76	AWS A5.1-04	E7016			2.6 - 6.0 mm	KOBE
CM-A106	AWS A5.5-96	E9016-B3			2.4 - 6.0 mm	KOBE
CM-A96	AWS A5.5-96	E8016-B2			2.4 - 6.0 mm	KOBE
LB-106	AWS A5.5-96	E10016-G			2.6 - 6.0 mm	KOBE
LB-24	ABS	3Y	All	ac / dcep	3.2 - 4.0 mm	KOBE
LB-24	ABS	3Y	F	ac / dcep	5.0 - 6.0 mm	KOBE
LB-52-18	ABS	3Y	F	ac / dcep	5.0 - 6.0 mm	KOBE
LB-52-18	ABS	3Y	All	ac / dcep	2.6 - 4.0 mm	KOBE
LB-52NS	ABS	3Y, 4Y400 H10**	F	ac / dcep	6.0 mm	KOBE

**Manufacturer's guaranteed min. properties: CVN 34 J at -60 °C.

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
JAPAN						
Kobe Steel Ltd. (Ibaraki Plant)						
LB-52NS	ABS	3Y, 4Y400 H10**	All	ac / dcep	2.6 - 5.0 mm	KOBE
**Manufacturer's guaranteed min. properties: CVN 34 J at -60 °C.						
LB-52V	ABS	3Y	F, V-down	ac / dcep	5.5 mm	KOBE
LB-52V	ABS	3Y	F, OH, V-down	ac / dcep	3.2 - 5.0 mm	KOBE
LB-55NS	ABS	5YQ420 H5	All, H-fillet	ac / dcep	3.2 - 4.0 mm	KOBE
LB-62	ABS	3YQ500	All	ac / dcep	2.6 - 5.0 mm	KOBE
LB-62	ABS	3YQ500	F	ac / dcep	5.5 - 6.0 mm	KOBE
LB-62L	ABS	5YQ500^	F, V, OH	ac / dcep	3.2 - 5.0 mm	KOBE
^Manufacturer's guaranteed values for hull structural thick plate with min. yield stree of 460 MPsa (H47 steel grade)						
LB-62U	ABS	3YQ500	F, V, OH	ac / dcep	3.2 - 4.0 mm	KOBE
LB-62U	ABS	3YQ500	HF	ac / dcep	3.2 - 4.0 mm	KOBE
LB-67L	ABS	5YQ500 H5	All	dcep	3.2 - 4.0 mm	KOBE
LB-67L	ABS	5YQ500 H5	HF	dcep	3.2 - 5.0 mm	KOBE
LB-67L	ABS	5YQ500 H5	F	dcep	5.0 mm	KOBE
LB-7018-1	ABS	4Y400	All	dcep	3.2 - 4.0 mm	KOBE
LB-70L	ABS	4YQ620 H5	HF	dcep	3.2 - 5.0 mm	KOBE
LB-70L	ABS	4YQ620 H5	F	dcep	5.0 mm	KOBE
LB-70L	ABS	4YQ620 H5	All	dcep	3.2 - 4.0 mm	KOBE
LB-80L	ABS	5YQ690 H5	H, HF	ac / dcep	3.2 - 4.0 mm	KOBE
LB-80L	ABS	5YQ690 H5	All	ac / dcep	2.6 - 5.0 mm	KOBE
LB-M52	ABS	3Y	All	ac / dcep	3.2 - 5.0 mm	KOBE
LB-M52	ABS	3Y	F	ac / dcep	6.0 mm	KOBE
NB-A52V	ABS	3Y**	F, V-down	ac / dcep	3.2 - 5.5 mm	KOBE
**Manufacturer's guaranteed min. properties: CVN 37 J at -60 °C.						
NC-36L	AWS A5.4-92	E316L-16			2.0 - 5.0 mm	KOBE
NC-38	AWS A5.4-92	E308-16			1.6 - 5.0 mm	KOBE
NC-39	AWS A5.4-92	E309-16			2.0 - 6.0 mm	KOBE
NC-39 MoL	**	**	F	ac / dcep	5.0 mm	KOBE
**Manufacturer's guaranteed min. properties: T.S. 570 N/mm2, El. 30%, Composition max. C 0.04, Ni 12-14, Cr 22-25, Mo 2-3, P 0.04, S 0.03, Si 0.9, Mn 2.5						

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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JAPAN

Kobe Steel Ltd. (Ibaraki Plant)

NC-39 MoL	**	**	All	ac / dcep	2.6 - 4.0 mm	KOBE
**Manufacturer's guaranteed min. properties: T.S. 570 N/mm ² , El. 30%, Composition max. C 0.04, Ni 12-14, Cr 22-25, Mo 2-3, P 0.04, S 0.03, Si 0.9, Mn 2.5.						
Z-44	ABS	3	All	ac / dcep	2.6 - 5.0 mm	KOBE
Z-52	ABS	3Y	All	ac / dcep	3.2 - 5.0 mm	KOBE
Z-52	ABS	3Y	F	ac / dcep	6.0 mm	KOBE

Kobe Steel Ltd. (Saijo Plant)

B-14	ABS	3	F	ac / dc	6.0 - 8.0 mm	KOBE
B-14	ABS	3	All	ac / dc	3.2 - 5.0 mm	KOBE
B-17	ABS	3	F	ac / dc	6.0 - 8.0 mm	KOBE
B-17	ABS	3	All	ac / dc	3.2 - 5.0 mm	KOBE
BI-14	ABS	3	F	ac / dc	6.0 mm	KOBE
BI-14	ABS	3	All	ac / dc	3.2 - 5.0 mm	KOBE
KS-03R	ABS	3	All	ac	2.6 - 5.0 mm	KOBE
KS-300	ABS	2	F	ac	4.0 - 7.0 mm	KOBE
KS-7	ABS	3	All	ac	3.2 - 5.0 mm	KOBE
KS-76	ABS	3Y	All	ac	3.2 - 5.0 mm	KOBE
KS-76T	ABS	3Y	F, H, V-down	ac / dcep	3.2 - 4.0 mm	KOBE
KS-76V	ABS	3Y	F, V-down	ac	3.2 - 5.0 mm	KOBE
KS-78	ABS	2Y*	HF	ac	4.0 - 7.0 mm	KOBE

*Non-low hydrogen electrode, requires special approval for use on higher-strength steel.

KS-8	ABS	3	F	ac	6.0 mm	KOBE
KS-8	ABS	3	All	ac	3.2 - 5.0 mm	KOBE
LB-26	ABS	3 H15	F	ac / dcep	6.0 - 8.0 mm	KOBE
LB-26	ABS	3 H15	All	ac / dcep	2.6 - 5.0 mm	KOBE
LB-26V	ABS	3Y	F, V-down	ac / dcep	5.5 - 6.0 mm	KOBE
LB-26V	ABS	3Y	F, OH, V-down	ac / dcep	3.2 - 5.0 mm	KOBE
LB-47	ABS	3 H15	F	ac / dcep	6.0 mm	KOBE
LB-47	ABS	3 H15	All	ac / dcep	3.2 - 5.0 mm	KOBE
LB-50A	ABS	3Y	All	ac / dcep	3.2 - 5.0 mm	KOBE

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
JAPAN						
Kobe Steel Ltd. (Saijo Plant)						
LB-52	ABS	3Y, 3Y400	F	ac / dcep	6.0 mm	KOBE
LB-52	ABS	3Y, 3Y400	All	ac / dcep	3.2 - 5.0 mm	KOBE
LB-52NS	ABS	3Y, 4Y400	All	ac / dcep	3.2 - 5.0 mm	KOBE
LB-52NS	ABS	3Y, 4Y400	F	ac / dcep	6.0 mm	KOBE
LB-52NSU	ABS	5Y400	All	ac / dcep	3.2 mm	IMABARI
LB-52T	ABS	3Y400	F, OH, V-down	ac / dcep	3.2 - 5.0 mm	KOBE
LB-52U	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	KOBE
LB-I52H	ABS	3Y	F	ac / dcep	8.0 mm**	KOBE
**Recommended by mfr for (HF) gravity welding with 5.0 - 8.0 mm / 350 - 900 mm size electrodes						
LB-I52H	ABS	3Y	F, H	ac / dcep	5.0 - 7.0 mm**	KOBE
**Recommended by mfr for (HF) gravity welding with 5.0 - 8.0 mm / 350 - 900 mm size electrodes						
LB-M52	ABS	3Y	F	ac / dcep	6.0 mm	KOBE
LB-M52	ABS	3Y	All	ac / dcep	3.25 - 5.0 mm	KOBE
LT-B50	ABS	3Y*	F	ac / dcep	3.2 - 8.0 mm**	KOBE
* Non-low hydrogen electrode, requires special approval for use on higher-strength steel. **Recommended by manufacturer for (HF) gravity welding with 3.2 - 8.0 mm / 350 - 900 mm size electrodes.						
LT-B52A	ABS	3Y	F	ac / dcep	5.0 - 8.0 mm**	KOBE
**Recommended by manufacturer for (HF) gravity welding with 5.0 - 8.0 mm / 350 - 900 mm size electrodes.						
LT-B52A	ABS	3Y	All	ac / dcep	3.2 - 4.5 mm**	KOBE
**Recommended by manufacturer for (HF) gravity welding with 3.2 - 4.50 mm / 350 - 900 mm size electrodes.						
NB-A52F	ABS	3Y**	F-fillet	ac	5.0 - 8.0 mm**	KOBE
**Manufacturer's guaranteed min. CVN 4.8 Kgf-m at -60°C. **Recommended by manufacturer for (HF) gravity welding with 5.0 - 8.0 mm / 450 - 700 mm size electrodes.						
Z-1	ABS	3	All	ac / dc	3.2 - 5.0 mm	KOBE
Z-27	ABS	3	F	ac / dc	4.0 - 8.0 mm**	KOBE
**Recommended by manufacturer for (HF) gravity welding with 4.0 - 8.0 mm / 350 - 900 mm size electrodes.						
Z-43F	ABS	3	F	ac / dc	4.0 - 8.0 mm**	KOBE
**Recommended by manufacturer for (HF) gravity welding with 4.0 - 8.0 mm / 450 - 900 mm size electrodes.						
Z-44	ABS	3	All	ac / dc	2.6 - 6.0 mm	KOBE
Z-6V	ABS	3Y400	F, V-down	ac / dcep	5.5 mm	KOBE
Z-6V	ABS	3Y400	F, OH, V-down	ac / dcep	3.2 - 5.0 mm	KOBE

Nippon Steel & Sumikin Welding Co., Ltd.

EX - 4	ABS	2	F**	ac / dcen	4.0 - 7.0 mm	NAGASAKI
**Recommended by mfr. for (HF) gravity welding with 550 / 900 mm X 4.0 / 7.0 mm						

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
JAPAN						
Nippon Steel & Sumikin Welding Co., Ltd.						
EX - 7	ABS	2	F**	ac / dcep	7.0 - 8.0 mm	NAGASAKI
**Recommended by mfr. for (HF) gravity welding with 450/900 mm x 4.0//8.0 mm.						
EX-50F	ABS	2Y*	HF**	ac / dcep	3.2 - 6.4 mm	NAGASAKI
*Non-low hydrogen electrode, requires special approval for use with higher strength steels. maximum hydrogen content 0.25 ml/gr. **Rocommended by Mfr for (HF) gravity welding with 400/900 mm X 3.2/6.4 mm size						
EX-55	ABS	3Y	F	ac / dcep	6.0 - 7.0 mm	NAGASAKI
EX-55	ABS	3Y	All	ac / dcep	3.2 - 5.0 mm	NAGASAKI
Nittetsu - 16	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	NAGASAKI
Nittetsu - 16	ABS	3Y	F	ac / dcep	5.5 - 6.0 mm	NAGASAKI
Nittetsu - 16V	ABS	3Y	F, V-down	ac / dcep	5.5 - 6.0 mm	NAGASAKI
Nittetsu - 16V	ABS	3Y	F, OH, V-down	ac / dcep	3.2 - 5.0 mm	NAGASAKI
Nittetsu - RS55	ABS	3Y	All	ac / dcep	3.2 - 5.0 mm	NAGASAKI
Nittetsu - RS55	ABS	3Y	F	ac / dcep	6.0 mm	NAGASAKI
Nittetsu A-200	ABS	3	F	ac / dc	6.0 mm	NAGASAKI
Nittetsu A-200	ABS	3	All	ac / dc	2.6 - 5.0 mm	NAGASAKI
Nittetsu G-200	ABS	3	F	ac / dc	6.0 - 8.0 mm	NAGASAKI
Nittetsu G-200	ABS	3	All	ac / dc	2.0 - 5.0 mm	NAGASAKI
Nittetsu G-300	ABS	3	F	ac / dcep	6.0 - 7.0 mm	NAGASAKI
Nittetsu G-300	ABS	3	All	ac / dcep	2.6 - 5.0 mm	NAGASAKI
Nittetsu L-55	ABS	3Y	F	ac / dcep	5.5 - 6.0 mm	NAGASAKI
Nittetsu L-55	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	NAGASAKI
Nittetsu L-55SN	ABS	3Y**	All	ac / dcep	3.2 - 5.0 mm	NAGASAKI
**Manufacturer's minimum guaranteed properties CVN 47 J at -60°C						
Nittetsu L-60	AWS A5.5	E8018-G**	All	ac / dcep	2.6 - 6.0 mm	NAGASAKI
**Mfr's guaranteed min CVN 34J @ -40 deg C						
Nittetsu L-80	AWS A5.5-96	E11016-G**	F	ac / dcep	5.0 - 6.0 mm	NAGASAKI
**Manufacturer's guaranteed min. properties: CVN 34 J at -40 °C						
Nittetsu L-80	AWS A5.5-96	E11016-G**	All	ac / dcep	3.2 - 4.0 mm	NAGASAKI
**Manufacturer's guaranteed min. properties: CVN 34 J at -40 °C						
Nittetsu L-80SN	Mfr's	**	All	ac / dcep	3.2 - 5.0 mm	NAGASAKI
**Manufacturer's guaranteed min. properties: T.S 82 kgf/mm2, Y.P. 70 kgf/mm2, EL. 20%, CVN 4.8 kg-m at -60°C.						
Nittetsu L-90SN	-	**	All	ac / dcep	3.2 - 5.0 mm	NAGASAKI
**Mfr's Guaranteed min. properties: T.S. 880 MPa, Y.P. 827 MPa, EI 13%, CVN 34J @ -40 deg C, H5						

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
JAPAN						
Nippon Steel & Sumikin Welding Co., Ltd.						
Nittetsu LM-55G	ABS	3Y	F**	ac / dcep	4.0 - 8.0 mm	NAGASAKI
**Recommended by manufacturer for (HF) Gravity Welding with 550 / 900 mm x 4.0 / 8.0 mm						
Nittetsu N-5F	ABS	3Y*	HF	ac / dcep	5.0 - 7.0 mm	NAGASAKI
* Non-low hydrogen electrode requires special approval for use on higher strength steel. Manufacturer's guaranteed min. properties: CVN 47 J at -60 °C.						
Nittetsu NS-03Hi	ABS	3	All	ac / dc	2.6 - 6.0 mm	NAGASAKI
Nittetsu TW-50	ABS	3Y	F, V-down	ac / dcep	4.5 - 5.0 mm	NAGASAKI
Nittetsu TW-50	ABS	3Y	F, OH, V-down	ac / dcep	2.6 - 4.0 mm	NAGASAKI
S-03Z	ABS	2	All	ac / dc	2.6 - 5.0 mm	NAGASAKI
Nippon Welding Rod Co., Ltd. (Hamakita)						
WEL 308L	AWS A5.4-92	E308L-16	F, H	ac / dcep	5.0 mm	YOKOHAMA
WEL 308L	AWS A5.4-92	E308L-16	All	ac / dcep	3.2 - 4.0 mm	YOKOHAMA
WEL 309L	AWS A5.4-92	E309L-16	F, H	ac / dcep	5.0 mm	YOKOHAMA
WEL 309L	AWS A5.4-92	E309L-16	All	ac / dcep	3.2 - 4.0 mm	YOKOHAMA
WEL 316L	AWS A5.4-92	E316L-16	F, H	ac / dcep	5.0 mm	YOKOHAMA
WEL 316L	AWS A5.4-92	E316L-16	All	ac / dcep	3.2 - 4.0 mm	YOKOHAMA
Shikoku Welding Electrode Co., Ltd.						
Shikoku-Rode No. 8	ABS	3	All	ac / dc	2.6 - 5.0 mm	IMABARI
Shikoku-Rode No. 8	ABS	3	F	ac / dc	5.5 - 6.0 mm	IMABARI
Shikoku-Rode SB-27	ABS	3**	F	ac / dcep	4.0 - 7.0 mm	IMABARI
**Recommended by manufacturer for (HF) gravity welding with 4.0 mm/550 mm, 4.5 - 5.0 mm/550 - 700 mm and 5.5 - 7.0 mm/550 - 900 mm size electrodes.						
Shikoku-Rode SL-50R	ABS	3Y	All	ac / dcep	3.2 - 4.0 mm	IMABARI
Shikoku-Rode SL-50T	ABS	3Y	All, V-down	ac / dcep	2.6 - 4.0 mm	IMABARI
Shikoku-Rode SL-55	ABS	3Y	F	ac / dcep	5.5 - 6.0 mm	IMABARI
Shikoku-Rode SL-55	ABS	3Y	All	ac / dcep	3.2 - 5.0 mm	IMABARI
Shikoku-Rode SLV-16	ABS	3Y	F, V-down	ac / dcep	5.5 mm	IMABARI
Shikoku-Rode SLV-16	ABS	3Y	All, V-down	ac / dcep	3.2 - 5.0 mm	IMABARI
Shikoku-Rode SM-50G	ABS	2Y*	HF	ac / dcep	4.0 - 7.0 mm	IMABARI
*Non-low hydrogen electrode, requires special approval for use on higher-strength steel. Recommended by manufacturer for (HF) gravity welding with 4.0 mm / 550 mm and 4.5 - 7.0 mm / 550 - 700 mm size electrodes.						
Shikoku-Rode SR-1	ABS	3	All	ac / dc	3.2 - 5.0 mm	IMABARI

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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JAPAN

Shikoku Welding Electrode Co., Ltd.

Shikoku-Rode SR-2	ABS	3	F	ac / dc	5.5 - 6.0 mm	IMABARI
Shikoku-Rode SR-2	ABS	3	All	ac / dc	2.6 - 5.0 mm	IMABARI

Taseto Co., Ltd.

RNY 308	AWS A5.4-92	E308-16	All	ac / dcep	2.6 - 5.0 mm	YOKOHAMA
RNY 309	AWS A5.4-92	E309-16	All	ac / dcep	2.6 - 5.0 mm	YOKOHAMA
RNY 309MoL	AWS A5.4-92	E309MoL-16	All	ac / dcep	2.6 - 5.0 mm	YOKOHAMA
RNY 316L	AWS A5.4-92	E316L-16	All	ac / dcep	2.6 - 5.0 mm	YOKOHAMA

KOREA

Chosun Welding Co., Ltd. (Pohang Plant)

CL-100	ABS	2	All	ac / dc	2.6 - 5.0 mm	ULSAN
CL-101	ABS	2	All	ac / dc	2.6 - 5.0 mm	ULSAN
CR-13	ABS	2	All	ac / dc	2.6 - 5.0 mm	ULSAN
CR-13	ABS	2	F, HF	ac / dc	6.0 mm	ULSAN
CR-24	ABS	2Y	F, HF	ac / dcep	2.6 - 6.4 mm	ULSAN
CS-200	ABS	3	F, HF	ac / dc	6.0 mm	ULSAN
CS-200	ABS	3	All	ac / dc	2.6 - 5.0 mm	ULSAN
LC-300	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	ULSAN
LC-300	ABS	3Y	F, HF	ac / dcep	6.0 mm	ULSAN
LC-300NS	ABS	5Y400 H10	All	ac / dcep	2.6 - 5.0 mm	ULSAN
LC-318	ABS	3Y	F, HF	ac / dcep	6.0 mm	ULSAN
LC-318	ABS	3Y	All	ac / dcep	3.2 - 5.0 mm	ULSAN
LC-318N	ABS	4Y	All	ac / dcep	2.6 - 5.0 mm	ULSAN
LC-328	ABS	3Y	F, HF	ac / dcep	3.2 - 7.0 mm	ULSAN
LPA-118	ABS	4Y	All	ac / dcep	2.6 - 5.0 mm	ULSAN
NC-308	AWS A5.4	E308-16	F, HF	ac / dcep	5.0 mm	ULSAN
NC-308	AWS A5.4	E308-16	All	ac / dcep	2.6 - 4.0 mm	ULSAN
NC-308L	AWS A5.4	E308L-16	All	ac / dcep	2.6 - 4.0 mm	ULSAN
NC-308L	AWS A5.4	E308L-16	F, HF	ac / dcep	5.0 mm	ULSAN
NC-309	AWS A5.4	E309-16	F, HF	ac / dcep	5.0 mm	ULSAN

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
KOREA						
Chosun Welding Co., Ltd. (Pohang Plant)						
NC-309	AWS A5.4	E309-16	All	ac / dcep	2.6 - 4.0 mm	ULSAN
NC-309L	AWS A5.4	E309L-16	F, HF	ac / dcep	5.0 mm	ULSAN
NC-309L	AWS A5.4	E309L-16	All	ac / dcep	2.6 - 4.0 mm	ULSAN
NC-309Mo	AWS A5.4	E309Mo-16	F, HF	ac / dcep	5.0 mm	ULSAN
NC-309Mo	AWS A5.4	E309Mo-16	All	ac / dcep	2.6 - 4.0 mm	ULSAN
NC-310	AWS A5.4	E310-16	All	ac / dcep	2.6 - 4.0 mm	ULSAN
NC-310	AWS A5.4	E310-16	F, HF	ac / dcep	5.0 mm	ULSAN
NC-316	AWS A5.4	E316-16	F, HF	ac / dcep	5.0 mm	ULSAN
NC-316	AWS A5.4	E316-16	All	ac / dcep	2.6 - 4.0 mm	ULSAN
NC-316L	AWS A5.4	E316L-16	All	ac / dcep	2.6 - 4.0 mm	ULSAN
NC-316L	AWS A5.4	E316L-16	F, HF	ac / dcep	5.0 mm	ULSAN
NC-347	AWS A5.4	E347-16	F, HF	ac / dcep	5.0 mm	ULSAN
NC-347	AWS A5.4	E347-16	All	ac / dcep	2.6 - 4.0 mm	ULSAN
Esab SeAH Corp.						
Esab E308L-17	AWS A5.4-92	E308L-17	All	ac / dcep	2.0 - 5.0 mm	BUSAN
Esab E309L-17	AWS A5.4-92	E309L-17	All	ac / dcep	2.0 - 5.0 mm	BUSAN
Esab E316L-17	AWS A5.4-92	E316L-17	All	ac / dcep	2.0 - 5.0 mm	BUSAN
HT-80G Manufacturers Guaranteed CVN 27J at -60 C	AWS A5.5-96	E11018-G	All	ac / dcep	2.0 - 5.0 mm	BUSAN
Inox 308L	AWS A5.4-92	E308L-16	All	ac / dcep	2.0 - 5.0 mm	BUSAN
Inox 309L	AWS A5.4-92	E309L-16	All	ac / dcep	2.0 - 5.0 mm	BUSAN
Inox 312	AWS A5.4-92	E312-16	All	ac / dcep	2.0 - 5.0 mm	BUSAN
Inox 316L	AWS A5.4-92	E316L-16	All	ac / dcep	2.0 - 5.0 mm	BUSAN
NCM-625	AWS A5.11	ENiCrMo-3	All	dcep	2.0 - 5.0 mm	BUSAN
SMP E308L	AWS A5.4-92	E308L-16	All	ac / dcep	2.0 - 5.0 mm	BUSAN
SMP E309L	AWS A5.4-92	E309L-16	All	ac / dcep	2.0 - 5.0 mm	BUSAN
SMP E312	AWS A5.4-92	E312-16	All	ac / dcep	2.0 - 5.0 mm	BUSAN
SMP E316L	AWS A5.4-92	E316L-16	All	ac / dcep	2.0 - 5.0 mm	BUSAN

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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KOREA

Gentech Welding Inc.

GE-6013	ABS	2	All	ac / dcep	2.6 - 5.0 mm	ULSAN
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Hyundai Welding Co., Ltd.

S-10016.G	AWS A5.5-06	E10016-G		ac / dcep	2.6 - 6.0 mm	ULSAN
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S-11016.G	AWS A5.5-06	E11016-G		ac / dcep	2.6 - 6.0 mm	ULSAN
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S-11018.M	AWS A5.5-06	E11018M		dcep	2.6 - 6.0 mm	ULSAN
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S-308.16N	AWS A5.4-06	E308-16		ac / dcep	2.4 - 5.0 mm	ULSAN
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S-308L.16N	AWS A5.4-06	E308L-16		ac / dcep	2.4 - 5.0 mm	ULSAN
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S-308L.17	AWS A5.4-06	E308L-17		ac / dcep	2.0 - 5.0 mm	ULSAN
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S-308LT.16	AWS A5.4-06	E308L-16**	All	ac / dcep	2.0 - 4.0 mm	ULSAN
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**Manufacturer's guaranteed min properties CVN 27 J at -196°C

S-309.16N	AWS A5.4-06	E309-16		ac / dcep	2.4 - 5.0 mm	ULSAN
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S-309L.16	AWS A5.4-06	E309L-16		ac / dcep	2.0 - 5.0 mm	ULSAN
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S-309L.17	AWS A5.4-06	E309L-17		ac / dcep	2.0 - 5.0 mm	ULSAN
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S-309Mo.16	AWS A5.4-06	E309Mo-16		ac / dcep	2.4 - 5.0 mm	ULSAN
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S-316.16N	AWS A5.4-06	E316-16		ac / dcep	2.4 - 5.0 mm	ULSAN
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S-316L.16N	AWS A5.4-06	E316L-16		ac / dcep	2.4 - 5.0 mm	ULSAN
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S-316L.17	AWS A5.4-06	E316L-17		ac / dcep	2.0 - 5.0 mm	ULSAN
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S-316LT.16	AWS A5.4-06	E316L-16**	All	ac / dcep	2.0 - 4.0 mm	ULSAN
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**Manufacturer's guaranteed min properties CVN 27 J at -196°C

S-4301.I	ABS	3	All	ac / dc	2.6 - 6.0 mm	ULSAN
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S-4303.V	ABS	3	All	ac / dc	2.6 - 6.0 mm	ULSAN
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S-6010.D	ABS	2	All	dcep	2.6 - 6.0 mm	ULSAN
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S-6011.D	ABS	2	All	ac / dcep	2.6 - 6.0 mm	ULSAN
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S-6013.LF (Low fume type)	ABS	2	All	ac / dc	2.6 - 6.0 mm	ULSAN
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S-6013.V	ABS	2	All, V-down	ac / dc	2.6 - 5.0 mm	ULSAN
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S-6027.LF (Low fume type)	ABS	3	F	ac / dcen	4.0 - 8.0 mm	ULSAN
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S-7010.A1	AWS A5.5-06	E7010-A1		dcep	2.6 - 6.0 mm	ULSAN
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S-7014.F	ABS	2Y*	All	ac / dcen	2.6 - 6.0 mm	ULSAN
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*Non low hydrogen electrode; requires special approval for use on higher strength steel.

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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KOREA

Hyundai Welding Co., Ltd.

S-7016.H	ABS	3Y	All	ac / dcep	2.6 - 6.0 mm	ULSAN
S-7016.LF	ABS	3Y	All	ac / dcep	2.6 - 6.0 mm	ULSAN
S-7016.LS	ABS	3Y**	All	ac / dcep	2.6 - 6.0 mm	ULSAN

**Manufacturer's guaranteed min. properties: CVN 34 J at -60°C

S-7016.M	ABS	3Y	All	ac / dcep	2.6 - 6.0 mm	ULSAN
S-7016.O	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	ULSAN
S-7018.1	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	ULSAN
S-7018.1H	ABS	4Y H5	All	dcep	2.6 - 5.0 mm	ULSAN
S-7018.G	ABS	3Y	All	ac / dcep	2.6 - 6.0 mm	ULSAN
S-7024.F	ABS	2	F	ac / dcen	3.2 - 7.0 mm	ULSAN
S-7028.F	ABS	3Y*	F	ac / dcep	3.2 - 7.0 mm	ULSAN

*Non low hydrogen electrode; requires special approval for use on higher strength steel.

S-7048.V	ABS	3Y	All, V-down	ac / dcep	3.2 - 6.0 mm	ULSAN
S-76LTH	ABS	5Y / 5Y400 H5	All	ac / dcep	2.6 - 5.0 mm	ULSAN
S-8016.B2	AWS A5.5-06	E8016-B2		ac / dcep	2.6 - 6.0 mm	ULSAN
S-8016.G	AWS A5.5-06	E8016-G		ac / dcep	2.6 - 6.0 mm	ULSAN
S-8018.B2	AWS A5.5-06	E8018-B2		ac / dcep	2.6 - 6.0 mm	ULSAN
S-9016.G	AWS A5.5-06	E9016-G		ac / dcep	2.6 - 6.0 mm	ULSAN
S-9018.B3	AWS A5.5-06	E9018-B3		ac / dcep	3.2 - 6.0 mm	ULSAN
S-9018.M	AWS A5.5-06	E9018-M		dcep	2.6 - 5.0 mm	ULSAN
SR-625	AWS A5.11	ENiCrMo-3	All	ac / dcep	3.2 - 4.0 mm	ULSAN

Manufacturer's Guaranteed Min. Properties: CVN 27J @ -196C

Kiswel Ltd.

K-11018M	AWS A5.5-96	E11018M-H8	All	dcep	2.6 - 5.6 mm	BUSAN
K-7010A1	ABS, AWS A5.5	3Y, E7010-A1	All	dcep	2.6 - 5.0 mm	BUSAN
K-7010A1	ABS, AWS A5.5	3Y, E7010-A1	F	dcep	6.0 mm	BUSAN
K-7014	ABS, AWS A5.1	2Y, E7014	All	ac / dc	2.6 - 5.0 mm	BUSAN
K-7014	ABS, AWS A5.1	2Y, E7014	F	ac / dc	6.0 mm	BUSAN
K-7016HR	ABS	3Y H5	All	ac / dcep	2.6 - 5.0 mm	BUSAN
K-7018	ABS, AWS A5.1	3Y, E7018	F	ac / dcep	6.0 mm	BUSAN

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
KOREA						
Kiswel Ltd.						
K-7018	ABS, AWS A5.1	3Y, E7018	All	ac / dcep	2.6 - 5.0 mm	BUSAN
K-7018HR	ABS	3Y H5	All	ac / dcep	2.6 - 5.0 mm	BUSAN
K-7024	ABS, AWS A5.1	2Y, E7024	F	ac / dcep	2.6 - 6.0 mm	BUSAN
K-7028LF	ABS	3Y	F	ac / dcep	4.0 - 7.0 mm	BUSAN
K-8018	ABS	3Y	All, V-down	ac / dcep	2.6 - 6.0 mm	BUSAN
K-8018 B2	ABS, AWS A5.5	3Y, E8018-B2	F	ac / dcep	6.0 mm	BUSAN
K-8018 B2	ABS, AWS A5.5	3Y, E8018-B2	All	ac / dcep	2.6 - 5.0 mm	BUSAN
K-8018 C1	ABS, AWS A5.5	3Y, E8018-C1	F	ac / dcep	6.0 mm	BUSAN
K-8018 C1	ABS, AWS A5.5	3Y, E8018-C1	All	ac / dcep	2.6 - 5.0 mm	BUSAN
K-8018 C3	ABS, AWS A5.5	3Y, E8018-C3	F	ac / dcep	6.0 mm	BUSAN
K-8018 C3	ABS, AWS A5.5	3Y, E8018-C3	All	ac / dcep	2.6 - 5.0 mm	BUSAN
K-9018M	AWS A5.5-96	E9018M-H8	All	dcep	2.6 - 5.6 mm	BUSAN
KCL-10	ABS, AWS A5.1	3, E6010	All	dcep	2.6 - 5.0 mm	BUSAN
KCL-10	ABS, AWS A5.1	3, E6010	F	dcep	6.0 mm	BUSAN
KCL-11	ABS, AWS A5.1	3, E6011	F	ac / dcep	6.0 mm	BUSAN
KCL-11	ABS, AWS A5.1	3, E6011	All	ac / dcep	2.6 - 5.0 mm	BUSAN
KF-300LF	ABS	3	F	ac / dc	4.0 - 6.4 mm	BUSAN
KH-500LF	ABS	3Y	F	ac / dcep	6.0 mm	BUSAN
KH-500LF	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	BUSAN
KH-500VLF	ABS	3Y	All, V-down	ac / dcep	2.6 - 5.5 mm	BUSAN
KI-101LF	ABS	3	All	ac / dc	2.6 - 5.0 mm	BUSAN
KI-101LF	ABS	3	F	ac / dc	6.0 mm	BUSAN
KK-50LF	ABS	3Y	F	ac / dcep	6.0 mm	BUSAN
KK-50LF	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	BUSAN
KR-3000	ABS	2	F	ac / dcep	6.0 mm	BUSAN
KR-3000	ABS	2	All	ac / dcep	2.6 - 5.0 mm	BUSAN
KR-3000V	ABS	2	All, V-down	ac / dcep	2.6 - 5.0 mm	BUSAN
KST-308	AWS A5.4-92	E308-16	F	ac / dcep	5.0 mm	BUSAN
KST-308	AWS A5.4-92	E308-16	All	ac / dcep	2.6 - 4.0 mm	BUSAN

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
KOREA						
Kiswel Ltd.						
KST-308L	AWS A5.4-92	E308L-16	All	ac / dcep	2.6 - 4.0 mm	BUSAN
KST-308L	AWS A5.4-92	E308L-16	F	ac / dcep	5.0 mm	BUSAN
KST-309	AWS A5.4-92	E309-16	F	ac / dcep	5.0 mm	BUSAN
KST-309	AWS A5.4-92	E309-16	All	ac / dcep	2.6 - 4.0 mm	BUSAN
KST-309L	AWS A5.4-92	E309L-16	F	ac / dcep	5.0 mm	BUSAN
KST-309L	AWS A5.4-92	E309L-16	All	ac / dcep	2.6 - 4.0 mm	BUSAN
KST-316	AWS A5.4-92	E316-16	F	ac / dcep	5.0 mm	BUSAN
KST-316	AWS A5.4-92	E316-16	All	ac / dcep	2.6 - 4.0 mm	BUSAN
KST-316L	AWS A5.4-92	E316L-16	All	ac / dcep	2.6 - 4.0 mm	BUSAN
KST-316L	AWS A5.4-92	E316L-16	F	ac / dcep	5.0 mm	BUSAN
KT-303	ABS, JIS Z3211	3, D4303	All	ac / dc	2.6 - 5.0 mm	BUSAN
KT-303	ABS, JIS Z3211	3, D4303	F	ac / dc	6.0 mm	BUSAN

MALAYSIA

Cigweld (M) SDN., BHD.

Alloycraft 110	ABS	4Y620 H5	All	ac / dc	3.2 - 5.0 mm	KUALA LUMPUR
Alloycraft 110	ABS	4Y620 H5	All	ac / dc	3.2 - 5.0 mm	KUALA LUMPUR
Alloycraft 110	ABS	4Y620 H5	All	ac / dc	3.2 - 5.0 mm	KUALA LUMPUR
Alloycraft 80-C1	ABS	4Y460 H5	All	ac / dc	3.2 - 5.0 mm	KUALA LUMPUR
Alloycraft 90	ABS	4Y500 H5	All	ac / dc	3.2 - 5.0 mm	KUALA LUMPUR
Ferrocrafft 11	ABS	3	All	ac / dc	4.0 mm	KUALA LUMPUR
Ferrocrafft 12XP	ABS	2	All	ac / dc	4.0 mm	KUALA LUMPUR
Ferrocrafft 21	ABS	3	All	ac / dc	4.0 - 5.0 mm	KUALA LUMPUR
Ferrocrafft 22	ABS	2	F, H	ac / dc	4.0 - 5.0 mm	KUALA LUMPUR
Ferrocrafft 61	ABS	3Y	All	ac / dc	4.0 - 5.0 mm	KUALA LUMPUR
Ferrocrafft 61-H4	ABS	3Y H5	All	ac / dc	4.0 mm	KUALA LUMPUR
Ferrocrafft 61Ni-H4	ABS	3Y H5	All	ac / dc	4.0 mm	KUALA LUMPUR
Ferrocrafft 7016	ABS	3Y H5	All	ac / dc	4.0 - 5.0 mm	KUALA LUMPUR
GP 6012	ABS	2	All	ac / dc	4.0 mm	KUALA LUMPUR
Pipearc 6010P	ABS	3	All	ac / dc	4.0 - 4.8 mm	KUALA LUMPUR

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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MALAYSIA

Cigweld (M) SDN., BHD.

Satincraft 13	ABS	2	All	ac / dc	4.0 mm	KUALA LUMPUR
Smoothcraft	ABS	2	All	ac / dc	4.0 - 5.0 mm	KUALA LUMPUR
Weldcraft	ABS	3	All	ac / dc	4.0 mm	KUALA LUMPUR

Kiswel SDN. BHD.

K-7018	ABS, AWS A5.1	3Y, E7018	All	ac / dcep	2.6 - 6.0 mm	JOHOR
KI-101LF	ABS	3	All	ac / dcep / dcen	2.6 - 6.0 mm	JOHOR
KK-50LF	ABS	3Y	All	ac / dcep	2.6 - 6.0 mm	JOHOR
KR-3000	ABS	2	All	ac / dcep	2.6 - 6.0 mm	JOHOR
KST-308	AWS A5.4	E308-16	All	ac / dcep	2.6 - 5.0 mm	JOHOR
KST-308L	AWS A5.4	E308L-16	All	ac / dcep	2.6 - 5.0 mm	JOHOR
KST-309	AWS A5.4	E309-16	All	ac / dcep	2.6 - 5.0 mm	JOHOR
KST-309L	AWS A5.4	E309L-16	All	ac / dcep	2.6 - 5.0 mm	JOHOR
KST-316L	AWS A5.4	E316L-16	All	ac / dcep	2.6 - 5.0 mm	JOHOR

Kobe Welding (Malaysia) SDN BHD

RB 26	ABS	2	All	ac / dc	2.6 - 5.0 mm	KUALA LUMPUR
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MOX-Linde Gases SDN., BHD.

MR 70	ABS	3	All	ac / dc	4.0 - 5.0 mm	KUALA LUMPUR
MS 6013	ABS	2	All	ac / dc	4.0 - 5.0 mm	KUALA LUMPUR

Power Weld SDN BHD

BLUE ARC 24	AWSA5.1 E7024	2Y	All	ac / dcep	3.2MM -5.0MM	KUALA LUMPUR
Stablearc 18	ABS	3Y	All	ac / dcep	4.0 mm	KUALA LUMPUR
Stablearc 18-1	ABS	3YH10	All	ac / dcep	4.0 mm	KUALA LUMPUR
Stablearc 24	AWSA5.1 E7024	2Y	All	ac / dcep	3.2MM -5.0MM	KUALA LUMPUR

MEXICO

Electrodos Infra S.A. de C.V.

Infra 10S (AWS A5.1-04)	ABS	3	All	dcep	5/32"	MEXICO CITY
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Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
MEXICO						
Electrodos Infra S.A. de C.V.						
Infra 11 (AWS A5.1-04)	ABS	3	All	ac	5/32"	MEXICO CITY
Infra 718, Infra 718 Optimus, Infra 718 Plus (AWS A5.1-04)**	^^		All	ac / dc	3/32 - 3/16"	MEXICO CITY
**Note: Infra 718, Infra 718 Optimus, & Infra 718 Plus are only one product with three different trade Guaraantee: Tensile Strength Higher then ABS Grade 3						^^Manufactureres

Esab Mexico S.A. de C.V.

7018	**		All	ac / dcep	3/32" - 3/16"	VERACRUZ
**Manufacturer's Guarantee						
Atom-Arc 7018-1 / Esab 7018-1	ABS	3Y	All	ac / dcep	3/32" - 3/16"	VERACRUZ
Esab 6010	AWS A5.1-04	E6010	All	ac / dcep	3/32" - 1/4"	VERACRUZ
Esab 6010P	AWS A5.1-04	E6010	All	ac / dcep	3/32" - 1/4"	VERACRUZ
Esab 6013	AWS A5.1-04	E6013	All	ac / dcep	3/32" - 1/4"	VERACRUZ
Esab 7018	ABS	2Y	All	ac / dcep	3/32" - 3/16"	VERACRUZ
Esab 7018	AWS A5.1-04	E7018	F	dc	3/32" - 3/16"	VERACRUZ
Super 11	AWS A5.1-04	E6011	All	ac / dcep	3/32" - 1/4"	VERACRUZ
Sureweld 7024	ABS	2Y	F	ac / dc	3/32" - 1/4"	VERACRUZ
Sureweld SW 14	AWS A5.1-04	E6011	F	ac / dcep	3/32" - 5/32"	VERACRUZ

Lincoln Electric Mexicana S.A. de C.V.

Champion 7018 (E-7018)	AWS A5.1-04	E-7018	All	ac / dcep	1/8 - 3/16"	VERACRUZ
Fleetweld 5P (E-6010)	AWS A5.1-04	E-6010	All	ac / dcep	1/8 - 3/16"	VERACRUZ
Fleetweld 5P+ (E-6010)	AWS A5.1-04	E-6010	All	ac / dcep	1/8 - 3/16"	VERACRUZ
Grinox 10 E316L-16	AWS A5.4-06	E316L-16	All	ac / dcep	3/32" - 5/32"	VERACRUZ
Grinox 2 E308L-16	AWS A5.4-06	E308L-16	All	ac / dcep	3/32" - 5/32"	VERACRUZ
Grinox 2 Plus E308L-16	AWS A5.4-06	E308L-16	All	ac / dcep	3/32" - 5/32"	VERACRUZ
Grinox 21 E310-16	AWS A5.4-06	E310-16	All	ac / dcep	3/32" - 1/8"	VERACRUZ
Grinox 29 E312-16	AWS A5.4-06	E312-16	All	ac / dcep	3/32" - 1/8"	VERACRUZ
Grinox 53 E309MoL-16	AWS A5.4-06	E309MoL-16	All	ac / dcep	3/32" - 5/32"	VERACRUZ
Jet LH 78 RH	AWS A5.1-04	E-7018	All	ac / dcep	1/8 - 3/16"	VERACRUZ
Lincoln 2100	AWS A5.4-06	E-312-16	All	ac / dcep	3/32" - 1/8"	VERACRUZ

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
MEXICO						
Lincoln Electric Mexicana S.A. de C.V.						
Lincoln 6011 AS	AWS A5.1-04	E-6011	All	ac / dcep	1/8 - 3/16"	VERACRUZ
Lincoln 7018 - 1	AWS A5.1-04	E7018-1	All	ac / dcep	3/32" - 3/16"	VERACRUZ
Lincoln L-46	AWS A5.1-04	E6013	All	ac / dcep / dcen	1/8 - 3/16"	VERACRUZ
Praxair S. DE R.L. DE C.V.						
AGA B-10	ABS	3	All	ac / dcep	1/8 - 3/16"	VERACRUZ
AGA B-11	ABS	3Y	All	ac / dcep	3/32' - 1/4"	VERACRUZ
AGA C10S	AWS A5.1-04	E-6010	All	dcep	1/8 - 3/16"	VERACRUZ
Prostar E 6011	AWS A5.1-04	E-6011	All	ac / dcep	1/8 - 3/16"	VERACRUZ
Prostar E 7018	AWS A5.1-04	E-7018	All	ac / dcep	1/8 - 3/16"	VERACRUZ
NETHERLANDS						
Ashland - Drew Marine Division						
LH Plus	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	ROTTERDAM
LV Plus	ABS	3Y	F, V-down	ac / dc	2.0 - 5.0 mm	ROTTERDAM
Hilarius Haarlem Holland B.V.						
Hilco Basic	ABS	3Y	All	ac / dcep	2.5 - 5.0 mm	ROTTERDAM
Hilco Basic Directa	AWS A5.1-04	E7018-1	All	ac / dcep	2.5 - 5.0 mm	ROTTERDAM
Hilco Basic Super	ABS	3Y	All	ac / dcep	2.5 - 5.0 mm	ROTTERDAM
Hilco Brown	ABS	2Y*	All, V-down	ac / dcep	2.5 - 5.0 mm	ROTTERDAM
* Non low-hydrogen electrode requires special approval for use on higher-strength steel.						
Hilco Red Extra	ABS	1	All	ac / dcep	2.5 - 5.0 mm	ROTTERDAM
Lincoln Electric Europe						
Arosta 309Mo	EN1600	E23 12 2 LR 32	F	ac / dcep	2.5 - 5.0 mm	ROTTERDAM
Manufacturer's guaranteed CVN 40 J at 20°C						
Arosta 309S	EN1600	E23 12 LR 32	F	ac / dcep	2.5 - 5.0 mm	ROTTERDAM
Manufacturer's guaranteed CVN 40 J at 20°C						
Arosta 316L	EN1600	E19 12 3 LR 12	F	ac / dcep	1.5 - 5.0 mm	ROTTERDAM
Manufacturer's guaranteed CVN 40 J at 20°C						
Baso 100	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	ROTTERDAM
Baso 120	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	ROTTERDAM

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
NETHERLANDS						
Lincoln Electric Europe						
Baso 26V (NV 26V)	ABS	3Y	F, V-down	ac / dc	2.0 - 5.0 mm	ROTTERDAM
Baso 48SP	ABS	3 H10	All	ac / dcep	2.5 - 5.0 mm	ROTTERDAM
Baso G	ABS	3Y	All	dc	2.0 - 5.0 mm	ROTTERDAM
Conarc 49	ABS	3Y	All	ac / dc	2.0 - 6.0 mm	ROTTERDAM
Conarc 49C	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	ROTTERDAM
Conarc 51	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	ROTTERDAM
Conarc 60 G	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	ROTTERDAM
Conarc 80	AWS A5.5-06	E11018M H4	All	dcep	2.5 - 5.0 mm	ROTTERDAM
Conarc 85	AWS A5.5-06	E12016-G H4	All, V-down	ac / dcep	3.2 - 5.0 mm	ROTTERDAM
**Manufacturer's guaranteed max. H-content 0.05 mL/g.						
Conarc One	ABS	3Y	All	dc	2.0 - 5.0 mm	ROTTERDAM
Conarc V180	ABS	3Y H5	F	ac	3.2 - 6.3 mm	ROTTERDAM
Conarc V250	ABS	4Y400 H5	F	ac	4.0 - 6.0 mm	ROTTERDAM
Gonia 180	ABS	2	F	ac	4.0 - 6.3 mm	ROTTERDAM
Gricon 15 HB 50	ABS	3Y	All	dc	2.0 - 5.0 mm	ROTTERDAM
Kryo 1	ABS	3Y**	All	ac / dc	2.5 - 5.0 mm	ROTTERDAM
**Manufacturer's guaranteed min. properties: CVN 47J at -60 °C.						
Kryo 3	EN499	E46 8 3NiB32 H5	F	ac / dc	2.5 - 5.0 mm	ROTTERDAM
Manufacturer's guaranteed CVN 47J at -60 °C. Chemical Composition: Ni 2.3 - 2.75%.						
LH Plus	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	ROTTERDAM
LV Plus	ABS	3Y	F, V-down	ac / dc	2.0 - 5.0 mm	ROTTERDAM
Nichroma 160	EN1600	E23 12 2 LR 53	F	ac / dcep	3.25 - 5.0 mm	ROTTERDAM
Manufacturer's guaranteed CVN 47 J at -60 °C; Chemical Composition Ni: 2.3 - 2.75%						
Resistens 160	ABS	3Y	H	ac	4.0 - 5.0 mm	ROTTERDAM
Vertarosta 316L	EN1600	E19 12 3 LR 21	V-down	ac / dcep	3.25 mm	ROTTERDAM
Manufacturer's guaranteed CVN 40 J at 20 °C						

NEW ZEALAND

Weldwell New Zealand (an ITW Company)

Austarc 12P	ABS	2	All	ac	2.0 - 5.0 mm	AUCKLAND
Austarc 13	ABS	2	All	ac / dc	2.0 - 6.0 mm	AUCKLAND

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
NEW ZEALAND						
Weldwell New Zealand (an ITW Company)						
Austarc 16TC	ABS	3 H10	All	ac	2.5 - 6.0 mm	AUCKLAND
Austarc 24	ABS	2	F	ac / dcen	2.5 - 6.0 mm	AUCKLAND
Weldwell 56S	ABS	3Y H5	All	ac	2.5 - 5.0 mm	AUCKLAND
Weldwell PH118	AWS A5.5	E11018-G	All	ac / dcep	3.2 - 5.0 mm	AUCKLAND
Weldwell PH22.9.3LR	AWS A5.4	E2209-16	All	ac	2.5 - 4.0 mm	AUCKLAND
Weldwell PH27	ABS	3Y H5	F, V-down	ac / dcep	3.2 - 5.0 mm	AUCKLAND
Weldwell PH27P	ABS	3Y H5	F, OH, V-down	dc	2.5 - 4.0 mm	AUCKLAND
Weldwell PH28	ABS	2	All	ac / dcen	2.5 - 5.0 mm	AUCKLAND
Weldwell PH31A	ABS	3	All	ac	2.5 - 5.0 mm	AUCKLAND
Weldwell PH46	ABS	2	F, V	ac / dcen	2.0 - 4.0 mm	AUCKLAND
Weldwell PH68	ABS	1	All	ac / dcen	2.5 - 5.0 mm	AUCKLAND
Weldwell PH7024	ABS	2	F	ac	2.5 - 5.0 mm	AUCKLAND
Weldwell PH75	ABS	3Y	All	ac / dcep	2.5 - 4.0 mm	AUCKLAND
Weldwell PH77	ABS	3Y H5	All	ac / dcep	2.5 - 4.0 mm	AUCKLAND
Weldwell PH78	ABS	3	All	ac	2.5 - 4.0 mm	AUCKLAND
Weldwell PHC6H	ABS	3Y H5	F	ac / dcep	4.0 - 6.0 mm	AUCKLAND
Weldwell PHKV3	AWS A5.5	E8015-B3L	All	dcep	2.5 - 4.0 mm	AUCKLAND
Weldwell PHKV5	AWS A5.5	E7015-B2L	All	dcep	2.5 - 4.0 mm	AUCKLAND

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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NEW ZEALAND

Weldwell New Zealand (an ITW Company)

Weldwell PHRM308LC	AWS A5.4	E308L-17	All	ac	2.5 - 5.0 mm	AUCKLAND
Weldwell PHRM309MoLC	AWS A5.4	E309MoL-17	All	ac	2.0 - 5.0 mm	AUCKLAND
Weldwell PHRM316LC	AWS A5.4	E316L-17	All	ac	2.5 - 5.0 mm	AUCKLAND

PERU

Soldexa S.A.

AGA B-10	AWS A5.1	E-7018	All	ac / dcep	4.0 mm	GUAYAQUIL
AGA R-10	AWS A5.1	E-6013	All	ac / dcen	4.0 mm	GUAYAQUIL
Cellocord AP	ABS	3	All	ac / dcep	4.0 - 5.0 mm	GUAYAQUIL
Ferrocito 24	ABS	1	All	ac / dcen	4.0 - 5.0 mm	GUAYAQUIL
Ferrocito 27	ABS	3	F	ac / dcen	4.0 - 5.0 mm	GUAYAQUIL
INOX AW	AWS A5.4	E-308L	All	ac / dcep	2.5 - 5.0 mm	GUAYAQUIL
INOX BW ELC	AWS A5.4	E-316L	All	ac / dcep	2.5 - 5.0 mm	GUAYAQUIL
Linde B-18	ABS	3Y	All	ac / dcep	4.0 - 5.0 mm	GUAYAQUIL
Linde C-11	ABS	3	All	ac / dcep	4.0 - 5.0 mm	GUAYAQUIL
Linde R-13	ABS	1	All	ac / dcen	4.0 - 5.0 mm	GUAYAQUIL
Overcord	ABS	1	All	ac / dcen	4.0 - 5.0 mm	GUAYAQUIL
Overcord M	ABS	1	All	ac / dcen	4.0 - 5.0 mm	GUAYAQUIL
Supercito	ABS	3Y	All	ac / dcep	4.0 - 5.0 mm	GUAYAQUIL
Supercito 100 Plus	AWS A5.1	E-7018 H4R	All	dcep	2.5 - 5.0 mm	GUAYAQUIL

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
PERU						
Soldexa S.A.						
Supercito 100 Plus ACP	AWS A5.1	E-7018 H4R	All	dcep	2.5 - 5.0 mm	GUAYAQUIL
PHILIPPINES						
Electroweld Mfg. Corp.						
Electroweld 6011	AWS A5.1	E6011	All	ac / dcep	3.2 - 4.0 mm	MANILA
Electroweld 7018	AWS A5.1	E7018	All	ac / dcep	3.2 - 4.0 mm	MANILA
Fujiweld Incorporated						
Fujiweld Type 11 / Macweld Type 11	AWS A5.1-04	E6011	All	ac / dcep	4.0 - 5.0 mm	MANILA
Fujiweld Type 12 / Macweld Type 12	AWS A5.1-04	E6012	All	ac / dce	4.0 - 5.0 mm	MANILA
Fujiweld Type 13 / Macweld Type 13	AWS A5.1-04	E6013	All	ac / dce	4.0 - 5.0 mm	MANILA
Fujiweld Type 7018 / Macweld Type 7018	AWS A5.1-04	E7018	All	ac / dcep	4.0 - 5.0 mm	MANILA
Industrial Welding Corporation						
Nihonweld N-101 / Nihonweld N-6019 / Nipponweld N-14 / Philarc PA-17 / Bestweld BW-6019	ABS	3	All	ac / dcep	2.5 - 5.0 mm	MANILA
Nihonweld N-18 / Nihonweld N-7018 / Bestweld BW-7018 / Philarc PA-7018 / Starweld 7018	ABS	3Y	All	ac / dc	2.5 - 5.0 mm	MANILA
Nihonweld N-6010 / Bestweld BW-6010 / Philarc P-6010	AWS A5.1	E6010	All	dcep	2.5 - 5.0 mm	MANILA
Nihonweld N-6011 / Nihonweld N-11 / Bestweld BW-11 / Philarc PA-11 / Starweld 6011	ABS	3	All	ac / dcep	2.5 - 5.0 mm	MANILA
Nihonweld N-6012 / Nihonweld N-12 / Philarc PA-12 / Starweld 6012 / Bestweld BW-6012	ABS	2	All	ac / dce	2.5 - 5.0 mm	MANILA
Nihonweld N-6013 / Nihonweld N-44 / Nihonweld N-44A / Smoothcord 13 / Starweld 6013*	ABS	2	All	ac / dcep	2.5 - 5.0 mm	MANILA
Nihonweld N-1300 / Nihonweld N-55 / Nihonweld N-13 / Philarc PA-13 / Bestweld BW-6013						
Nihonweld N-7014 / Philarc P-7014 / Bestweld BW-7014	AWS A5.1	E7014	All	ac / dcep	2.5 - 5.0 mm	MANILA

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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PHILIPPINES

Industrial Welding Corporation

Nihonweld N-7016 / Nipponweld N-52 / Philarc PA-52 / Bestweld BW-7016	ABS	3	All	ac / dc	2.5 - 5.0 mm	MANILA
Nihonweld N-7018-1 / Philarc P-7018-1 / Bestweld BW-7018-1	AWS A5.1	E7018-1	All	ac / dcep	2.5 - 5.0 mm	MANILA
Nihonweld N-7024 / Nipponweld N-27 / Philarc PA-24 / Bestweld BW-7024	ABS	2	All	ac / dc	2.5 - 5.0 mm	MANILA
Nihonweld N-9016-G / Philarc P-9016-G / Bestweld BW-9016G	AWS A5.5-06	E9016-G	All	ac / dcep	2.5 - 5.0 mm	MANILA
Nihonweld NSS-308L / Nihonweld NSW-308L / Philarc 308L / Bestweld BW-308L	AWS A5.4-06	E308L-16	All	ac / dcep	1.6 - 5.0 mm	MANILA
Nihonweld NSS-309L / Nihonweld NSW-309L / Philarc 309L / Bestweld BW-309L	AWS A5.4-06	E309L-16	All	ac / dcep	1.6 - 5.0 mm	MANILA
Nihonweld NSS-316L / Nihonweld NSW-316L / Philarc 316L / Bestweld BW-316L	AWS A5.4-06	E316L-16	All	ac / dcep	1.6 - 5.0 mm	MANILA

Soudoweld Ind'l Phils., Inc.

Soudoweld 6011	AWS A5.1	E6011	All	ac / dcep	3.2 - 4.0 mm	MANILA
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Welding Industries of the Philippines

Wipweld 10 / AWS A5.1 E6010	ABS	3	All	dcep	3.2 - 6.0 mm	MANILA
Wipweld 11 / AWS A5.1 E6011	ABS	3	All	ac / dcep	2.5 - 6.0 mm	MANILA
Wipweld 1100 / AWS A5.1 E6011	ABS	3	All	ac / dcep	3.2 - 5.0 mm	MANILA
Wipweld 12 / AWS A5.1 E6012	ABS	2	All	ac / dcen	2.5 - 6.0 mm	MANILA
Wipweld 16 / AWS A5.1 E7016	ABS	3Y	All	ac / dcep	2.5 - 6.0 mm	MANILA
Wipweld 18 / AWS A5.1 E7018	ABS	3Y	All	ac / dcep	2.5 - 6.0 mm	MANILA
Wipweld 24 / Speedcord 220 / AWS A5.1 E7024	ABS	2	All	ac / dcen	3.2 - 6.0 mm	MANILA
Wipweld Cellofil / AWS A5.1 E6010	ABS	3	All	dcep	2.5 - 5.0 mm	MANILA
Wipweld Flexcord 19 / AWS A5.1 E6019	ABS	2	All	ac / dcen / dcep	2.5 - 5.0 mm	MANILA
Wipweld Gencord / AWS A5.1 E6013	ABS	2	All	ac / dcen / dcep	2.5 - 5.0 mm	MANILA
Wipweld Wipcord / AWS A5.1 E6013	ABS	2	All	ac / dcen / dcep	2.5 - 5.0 mm	MANILA

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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POLAND

Esab Sp. z o.o.

EB 146	ABS	3Y H5	All	dcep	2.0 - 6.0 mm	GLIWICE
EB 150	ABS	3Y H5	All	dcep	2.0 - 6.0 mm	GLIWICE
ER 146	ABS	2	All, V-down	ac / dc	2.0 - 6.0 mm	GLIWICE
ER 246	ABS	3	All	ac / dc	2.0 - 5.0 mm	GLIWICE
OK 46.00	ABS	2	All	ac/ dc	2.0 - 6.0 mm	GLIWICE
OK 48.00	ABS	3Y H5	All	dcep	2.0 - 5.0 mm	GLIWICE

Harris Calorific International Sp. z.o.o.

Cumulo	ABS	2	All	ac / dcen	2.5 - 4.0 mm	GLIWICE
Omnia	ABS	2	All, V-down	ac / dcen	2.0 - 4.0 mm	GLIWICE
Omnia 46	ABS	2	All	ac / dcen	2.0 - 5.0 mm	GLIWICE
Perfectt	ABS	2Y*	All	ac / dcen	2.0 - 5.0 mm	GLIWICE

*Non low hydrogen electrode, requires special approval for use with higher strength steel.

Supra	ABS	2	All, V-down	ac / dcen	2.5 - 5.0 mm	GLIWICE
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Lincoln Electric Bester Sp. z o.o.

Ferrod 135T	ABS	2Y	F	ac / dcen	3.2 - 5.0 mm	GLIWICE
Ferrod 160T	ABS	2Y	F	ac / dcen	3.2 - 5.0 mm	GLIWICE
Gonia 180	ABS	2Y	F	ac / dcen	5.0 mm	GLIWICE
Omnia	ABS	2	All	ac / dcen	2.0 - 4.0 mm	GLIWICE
Omnia 46	ABS	2Y	All	ac / dcen	2.0 - 5.0 mm	GLIWICE
Supra	ABS	2	All, V-down	ac / dc	2.5 - 5.0 mm	GLIWICE
Universalis	ABS	2Y	All	ac / dcen	2.0 - 5.0 mm	GLIWICE

Metalweld-Fiprom Polska Sp. Z.O.O.

EVB 50 p	ABS	3Y H5	All, V-down	dcep	2.5 - 5.0 mm	GDYNIA
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PORTUGAL

Electro Arco, S.A.

Baso 48 SP	E 7018, ABS	3Y H10	All	ac,dc	2.5 - 5.0 mm	LISBON
Baso 49	E 7018, ABS	3Y H5	All	ac	2.5 - 5.0 mm	LISBON
Lincoln 7018	E- 7018, ABS	4Y400 H5	All	dc	2.5 - 5.0 mm	LISBON

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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PORTUGAL

Electro Arco, S.A.

Numal	ABS , E-6013	2	All	ac / dc	2.0 - 4.0 mm	LISBON
Omnia 46	ABS, E -6013	2	All	ac / dc	2.0 - 4.0 mm	LISBON
Vandal E-7018-1	E -7018-1, ABS	3Y H5	All	ac / dc	2.5 - 6.0 mm	LISBON

ROMANIA

Air Liquide Welding France - Ductile Buzau

ETC PH 28 / Supercord	ABS	1	All	ac / dcep	2.5 - 5.0 mm	BUCHAREST
Sanbaz / Alflex CNF1 / Tensifro 70 E	ABS	3YH5	All	dcep	2.5 - 5.0 mm	BUCHAREST
Superbaz / Resistarc	ABS	3Y	All	dcep	2.5 - 5.0 mm	BUCHAREST
Supertit	ABS	2	F	ac / dcen	2.0 - 5.0 mm	BUCHAREST
Supertit Fin / Speedarc	ABS	2	All	ac / dcen	2.5 - 5.0 mm	BUCHAREST

SC Mechel S.A.

E51B	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	BUCHAREST
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SAUDI ARABIA

Zulfi Welding Electrodes Factory

Overcord E6013	ABS	2	All	ac / dcep / dcen	2.6 - 5.0 mm	DAMMAM
Supercito E7018	ABS	4Y400 H5	All	ac / dcep	2.6 - 5.0 mm	DAMMAM
Tenacito E7018-1	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	DAMMAM
Zelcord E6010	ABS	2	All, V-down	dcep	2.6 - 5.0 mm	DAMMAM
Zulfi E 6010	ABS	2	All	dcep	2.6 - 5.0 mm	DAMMAM
Zulfi E 6013	ABS	2	All	ac / dcep	2.6 - 5.0 mm	DAMMAM
Zulfi E 7018	ABS	5YQ420 H5	All	ac / dcep	2.6 - 5.0 mm	DAMMAM
Zulfi E 7018-1	ABS	5YQ420 H5	All	ac / dcep	2.6 - 5.0 mm	DAMMAM
Zulfi E 8018-C1	ABS	4Y400 H5	All	ac / dcep	2.6 - 5.0 mm	DAMMAM

SINGAPORE

American Dynamics PTE. Ltd.

Blue Arc 16	ABS	3Y	All, V-down	ac / dc	2.6 - 5.0 mm	SINGAPORE
Blue Arc 18	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	SINGAPORE

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
SINGAPORE						
ITW Welding Singapore Pte. Ltd.						
Hobart 18	ABS	3Y	All	ac / dcep	2.6 - 6.0 mm	SINGAPORE
Hobart 18-1	ABS	4Y	All	ac / dcep	2.6 - 5.0 mm	KAOHSIUNG
Hobart 18-1 H4	ABS	4Y400 H5	All	ac / dcep	2.6 - 5.0 mm	SINGAPORE
Kobe Welding (S) PTE Ltd.						
B-14	ABS	3	All	ac / dc	3.2 - 5.0 mm	SINGAPORE
Kobe 7024	ABS	2Y*	F & H-fillet	ac / dcep / dcen	3.2 - 5.0 mm	SINGAPORE
LB-52	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	SINGAPORE
LB-52-18	ABS	3Y	F	ac / dcep	5.0 mm	SINGAPORE
LB-52-18	ABS	3Y	All	ac / dcep	2.6 - 4.0 mm	SINGAPORE
LB-52U	ABS	3Y	All	ac / dcep	2.6 - 4.0 mm	SINGAPORE
LB-7018-1	ABS	4Y400	All, H-fillet	ac / dcep	2.6 - 5.0 mm	SINGAPORE
RB-26	ABS	2	All	ac / dc	2.6 - 5.0 mm	SINGAPORE
SLOVENIA						
Elektrode Jesenice D.O.O.						
Emona	ABS	3	All	ac / dcen	2.0 - 6.0 mm	RIJEKA
EVB 50	ABS	4Y	All	ac / dcep	2.5 - 6.0 mm	RIJEKA
EVB 60	ABS	3Y400	All	dcep	5.0 - 6.0 mm	RIJEKA
Inox R 19/12/3 NC	AWS A5.4	E316L-17	All	ac / dcep	2.0 - 5.0 mm	RIJEKA
Inox R 22/12/3 Fe	AWS A5.4	E309MoL-16	All	ac / dcep	1.6 - 6.0 mm	RIJEKA
Rutilen 12	ABS	1	F, H	ac / dcen	1.6 - 6.0 mm	RIJEKA
Rutilen 13	ABS	2	All	ac / dcen	1.6 - 6.0 mm	RIJEKA

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
SLOVENIA						
Elektrode Jesenice D.O.O.						
Sava 150 AR	ABS	3Y	F	ac / dcen	2.0 - 6.0 mm	RIJEKA
Sava 200	ABS	2Y	F	ac / dcen	3.25 - 5.0 mm	RIJEKA
Sava GV 130	ABS	2Y	F	ac / dcen	5.0 - 6.0 mm	RIJEKA
SWEDEN						
Elga AB						
Elga Cromarod 308L	-	Stainless*	All	ac / dcep	1.6 - 5.0 mm	GOTHENBURG
*Manufacturer's guaranteed minimum values Y.S. 350 MPa, T.S. 550 MPa, EI 35%, min CVN 45J @ -20 deg C						
Elga Cromarod 309 MoL	-	E309MoL-17	All	ac / dcep	2.0 - 5.0 mm	GOTHENBURG
Elga Cromarod 309L	-	Stainless*	All	ac / dcep	2.5 - 5.0 mm	GOTHENBURG
*Manufacturer's guaranteed minimum values Y.S. 320 MPa, T.S. 520 MPa, EI 30%, min CVN 29J @ -20 deg C						
Elga Cromarod 316L	-	Stainless*	All	ac / dcep	1.6 - 5.0 mm	GOTHENBURG
*Manufacturer's guaranteed minimum values Y.S. 350 MPa, T.S. 510 MPa, EI 30%, min CVN 47J @ -20 deg C						
Elga Maxeta 10	ABS	2	F	ac / dcen	2.5 - 6.0 mm	GOTHENBURG
Elga Maxeta 11	ABS	2	F	ac / dcen	3.25 - 6.0 mm	GOTHENBURG
Elga Maxeta 16	ABS	2	F, H	ac / dcep / dcen	3.25 - 5.0 mm	GOTHENBURG
Elga Maxeta 24	ABS	2	F, H	ac / dcep	3.25 - 6.0 mm	GOTHENBURG
Elga Maxeta 5	ABS	3	F	ac / dcen	2.5 - 6.0 mm	GOTHENBURG
Elga P110MR	ABS	4YQ690	All	ac / dcep	2.5 - 4.0 mm	GOTHENBURG
Elga P31	ABS	3	All	ac / dcen / dcep	2.5 - 5.0 mm	GOTHENBURG
Elga P45S	ABS	2	All, V-down	ac / dcen / dcep	2.0 - 5.0 mm	GOTHENBURG
Elga P47	ABS	4YQ420 H5	All	ac / dcen / dcep	2.5 - 5.0 mm	GOTHENBURG
Elga P47	AWS A5.1	E7016-1	All	ac / dcep	2.5 - 5.0 mm	GOTHENBURG
Elga P48K	ABS	3Y	All	ac / dcep	2.5 - 5.0 mm	GOTHENBURG
Elga P48P	ABS	3Y	All	ac / dc	2.5 - 4.0 mm	GOTHENBURG
Elga P48S	ABS	3Y	All	dcep	1.6 - 6.0 mm	GOTHENBURG
Elga P51	ABS	3Y	All	ac / dcep	2.0 - 5.0 mm	GOTHENBURG
Elga P62MR	ABS	3Y	F	ac / dcep	2.5 - 5.0 mm	GOTHENBURG

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
SWEDEN						
ESAB Perstorp AB						
OK 46.00	ABS	2	All	ac / dc	2.0 - 6.0 mm	GOTHENBURG
OK 48.00	ABS	3Y H5	All	dcep	1.6 - 7.0 mm	GOTHENBURG
OK 48.04	ABS	3Y H5	All	ac / dcep	2.0 - 6.0 mm	GOTHENBURG
OK 48.04	AWS A5.1	E7018	All	ac / dcep	4.0 - 6.0 mm	GOTHENBURG
OK 48.05	ABS	3Y H5	All	dcep	1.6 - 7.0 mm	GOTHENBURG
OK 48.08	ABS	3Y H5*	All	ac / dcep	2.5 - 5.0 mm	GOTHENBURG
*Recommended by manufacturer for low temperature applications down to -40 deg C.						
OK 48.08	AWS A5.1	E7018-G	All	ac / dc	4.0 - 6.0 mm	GOTHENBURG
OK 48.15	ABS	3Y	All	ac / dcep	2.0 - 6.0 mm	GOTHENBURG
OK 48.15	AWS A5.1	E7018	All	ac / dcep	4.0 - 6.0 mm	GOTHENBURG
OK 48.18	ABS	3Y*	All	ac / dcep	3.25 - 6.0 mm	GOTHENBURG
*Non-low hydrogen electrode. Special approval required for use with higher strength steels.						
OK 48.30	ABS	3Y H5	All	ac / dcep	2.0 - 6.0 mm	GOTHENBURG
OK 48.68	ABS	3Y H5	All	ac / dcep	2.0 - 6.0 mm	GOTHENBURG
OK 53.35	ABS	3Y H5	All, V-down	ac / dcep	4.0 - 5.6 mm	GOTHENBURG
OK 53.68	ABS	3Y H5*	All	ac / dcep	2.5 - 6.0 mm	GOTHENBURG
*Recommended by manufacturer for low temperature applications down to -40 deg C.						
OK 53.70	ABS	3Y H5	All, V-down	ac / dcep	2.5 - 4.0 mm	GOTHENBURG
OK 53.70	AWS A5.1	E7016-H4	All, V-down	ac / dcep	2.5 - 4.0 mm	GOTHENBURG
OK 55.00	ABS	3Y H5	All	ac / dcep	2.0 - 6.0 mm	GOTHENBURG
OK 61.30	-	Stainless*	All	dcep	1.6 - 5.0 mm	GOTHENBURG
*Manufacturer's guaranteed minimum properties T.S. 510 MPa, El. 30%, R.A. 40%						
OK 63.30	AWS A5.4	E316L-17*	All	ac / dcep	1.6 - 5.0 mm	GOTHENBURG
*Manufacturer's guaranteed minimum properties T.S. 520 MPa, 34J @ -20 deg C.						
OK 63.35	-	Stainless*	All	dcep	2.5 - 5.0 mm	GOTHENBURG
*Manufacturer's guaranteed minimum properties T.S. 550 MPa, El. 30%, R.A. 45%						
OK 67.45	-	Stainless*	All	dcep	2.5 - 5.0 mm	GOTHENBURG
*Manufacturer's guaranteed minimum properties T.S. 590 MPa, El. 30%, R.A. 35%						
OK 67.50	AWS A5.4	E2209-17	All	ac / dcep	2.0 - 3.2 mm	GOTHENBURG
OK 67.50	Manufacturer**	Stainless*	All	ac / dcep	2.0 - 5.0 mm	GOTHENBURG
*Intended for welding duplex & duplex to Carbon & C-Mn steels. **Manufacturer's guaranteed minimum properties Y.S. 550 MPa, T.S. 700 MPa, El. 20%, 40J @ 20 deg C.						

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
SWEDEN						
ESAB Perstorp AB						
OK 67.70	Manufacturer**	Stainless*	All	ac / dcep	2.0 - 5.0 mm	GOTHENBURG
*Intended for welding of stainless steels to Carbon & C-Mn steels. **Manufacturer's guaranteed minimum properties Y.S. 410 MPa, T.S. 560 MPa, El. 27%, 27J @ -20 deg C.						
OK 67.75	-	Stainless*	All	dcep	2.0 - 5.0 mm	GOTHENBURG
*Manufacturer's guaranteed minimum properties T.S. 520 MPa, El. 28%, R.A 44%						
OK 73.08	ABS	3Y H5	All	ac / dcep	2.5 - 6.0 mm	GOTHENBURG
OK 73.15	ABS	3Y H5	All	ac / dcep	2.5 - 6.0 mm	GOTHENBURG
OK 73.68	ABS	3Y400 H5*	All, V-down	ac / dcep	2.5 - 6.0 mm	GOTHENBURG
*Manufacturer's recommended stress relief at 600 deg C. Avg. CVN 43J @ -60 deg C. Low alloy steel electrode, recommended by manufacturer for low temperature applications.						
OK 74.78	ABS	3Y H5	All, V-down	ac / dcep	2.5 - 6.0 mm	GOTHENBURG
OK 75.75	AWS A5.5	E11018-G	-	-	3.25 - 5.0 mm	GOTHENBURG
OK 76.18	-	SR*	All	dcep	2.5 - 6.0 mm	GOTHENBURG
*Low alloy steel electrode, recommended by manufacturing for high temperature applications						
OK 76.28	-	SR*	All	dcep	2.5 - 6.0 mm	GOTHENBURG
*Low alloy steel electrode, recommended by manufacturing for high temperature applications						
OK 92.15	-	*	All	dcep	2.5 - 5.0 mm	GOTHENBURG
*Nickel based electrode for welding of nickel alloys & nickel alloyed steel for low temperature applications. Min CVN 50J @ -196 deg C.						
OK 92.26	-	*	All	dcep	2.5 - 5.0 mm	GOTHENBURG
*Nickel based electrode for welding of nickel alloys & nickel alloyed steel for low temperature applications. Min CVN 50J @ -196 deg C.						
OK 92.26	AWS A5.11	ENiCrFe-3	All	dcep	4.0 - 5.0 mm	GOTHENBURG
OK 92.55	AWS A5.11	ENiCrMo-6	-	-	2.5 - 5.0 mm	GOTHENBURG
OK Femax 33.48	ABS	3Y H5	F	ac / dcep	4.0 - 5.6 mm	GOTHENBURG
OK Femax 33.60	ABS	2	F	ac / dcep	3.25 - 6.0 mm	GOTHENBURG
OK Femax 33.80	ABS	2	F	ac / dcep	3.25 - 6.0 mm	GOTHENBURG
OK Femax 33.80	AWS A5.1	E7024	F	ac / dcep	4.0 - 6.0 mm	GOTHENBURG
OK Femax 33.80 Fematic	ABS	2Y*	F	ac / dcep	4.0 - 6.0 mm	GOTHENBURG
*Non-low hydrogen electrode. Special approval required for use with higher strength steels.						
OK Femax 33.81	ABS	2	F	ac / dc	2.25 - 6.0 mm	GOTHENBURG
OK Femax 38.65	ABS	3Y H5	F	ac / dcep	4.0 - 7.0 mm	GOTHENBURG
OK Femax 38.65	AWS A5.1	E7028	F	ac / dcep	4.0 - 6.0 mm	GOTHENBURG
OK Femax 38.85	ABS	3Y H5	F	ac / dcep	4.0 - 6.0 mm	GOTHENBURG
OK Femax 38.85	AWS A5.1	E7028	F	ac / dcep	4.0 - 6.0 mm	GOTHENBURG
OK Femax 38.95	ABS	3Y H5	F	ac / dcep	4.0 - 6.0 mm	GOTHENBURG

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
SWEDEN						
ESAB Perstorp AB						
OK Femax 39.50	ABS	3Y*	F	ac / dc	3.25 - 6.0 mm	GOTHENBURG
*Non-low hydrogen electrode. Special approval required for use with higher strength steels. Suitable for use with semi-automated fillet welding.						
ESAB Perstorp AB / Filarc						
Filarc 118	AWS A5.5	E11018-M	-	-	2.5 - 5.0 mm	GOTHENBURG
Filarc 27P	ABS	3Y	F, O, V-down	dcep	2.5 - 4.5 mm	GOTHENBURG
Filarc 35	ABS	3Y H5	All	dcep	2.0 - 6.0 mm	GOTHENBURG
Filarc 35S	ABS	3Y H5	All	ac / dcep	2.5 - 6.0 mm	GOTHENBURG
Filarc 56S	ABS	3Y H5*	All	ac / dcep	2.5 - 5.0 mm	GOTHENBURG
*Manufacturer's guaranteed min CVN 80J @ -40 deg C						
Filarc 75S	ABS	3Y H5*	All	ac / dcep	2.5 - 5.0 mm	GOTHENBURG
*Manufacturer's guaranteed min CVN 47J @ -60 deg C						
Filarc 76S	ABS	3Y H5*	All	ac / dcep	2.5 - 5.0 mm	GOTHENBURG
*Manufacturer's guaranteed min CVN 47J @ -60 deg C						
Filarc 88S	AWS A5.5	E8016-G*	-	-	2.5 - 5.5 mm	GOTHENBURG
*Manufacturer's guaranteed min CVN 47J @ -60 deg C						
Filarc 98S	AWS A5.5	E9018-G	-	-	2.5 - 6.0 mm	GOTHENBURG
Filarc C23	ABS	2Y*	F	ac / dcep	2.5 - 5.0 mm	GOTHENBURG
*Non-low hydrogen electrode, special approval required for use on higher strength steels.						
Filarc C6HH	ABS	3Y H5	F	ac / dcep	4.0 - 6.0 mm	GOTHENBURG
ESAB Perstorp AB / Murex						
Celtian	ABS	2	All	ac / dcep	2.5 - 5.0 mm	GOTHENBURG
Ferex 7016	ABS	3Y	All	ac / dc	2.5 - 6.0 mm	GOTHENBURG
Ferex 7018	ABS	3Y H5	All	ac / dcep	2.5 - 6.0 mm	GOTHENBURG
Ferex 7018LT	ABS	3Y	All	ac / dcep	4.0 - 6.0 mm	GOTHENBURG
Wilhelmsen Ships Services						
UNITOR 18/8-321 N	AWS A5.4-92	E316L-17**	All	ac / dcep	1.6 - 5.0 mm	GOTHENBURG
** Manufacturer's guaranteed values: TS min 520 MPa, CVN -20°C min. 34 J						
UNITOR 23/14-322 N	Mfr's	Welding of Stainless Steels to C & C-Mn Steels**	All	ac / dcep	2.0 - 5.0 mm	GOTHENBURG
** Manufacturer's guaranteed values: YS min 410 MPa, TS min 560 MPa, EL. A4 min 27%, CVN -20°C min 27 J						
UNITOR DUPLEX-325 N	Mfr's**	**	All	ac / dcep	2.0 - 5.0 mm	GOTHENBURG
**Intended for welding duplex and duplex to C- & C/Mn steels. Manufacturer's guaranteed values: Y.S. min 550 N/mm2, T.S. min 700 N/mm2, Elong. A5: min 20%, Charpy V @ +20°C min 40 J.						

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
SWEDEN						
Wilhelmsen Ships Services						
UNITOR GPO-302N	ABS	2	All	ac / dc	2.0 - 5.0 mm	GOTHENBURG
UNITOR GPR-300H	ABS	2	F	ac / dcep	3.2 - 5.0 mm	GOTHENBURG
UNITOR LH-314 N	ABS	3Y H5	All	dcep	1.6 - 7.0 mm	GOTHENBURG
UNITOR LHH-314 H	ABS	3Y H5	F	ac / dcep	4.0 - 7.0 mm	GOTHENBURG
UNITOR LHL-319 N	ABS	3Y400 H5**	All, V-down	ac / dcep	2.5 - 6.0 mm	GOTHENBURG
**Manufacturer's recommended stress relief at 600°C. Avg. CVN 43 J at -60°C. Low alloy steel electrode, recommended by manufacturer for low temperature applications.						
UNITOR LHR-320 N	ABS	3Y H5	All	ac / dcep	2.5 - 6.0 mm	GOTHENBURG
UNITOR LHT-318 N		SR**	All	dcep	2.5 - 6.0 mm	GOTHENBURG
**Low alloy steel electrode, recommended by manufacturer for high temperature applications.						
UNITOR LHV-316 N	ABS	3Y	F, OH, V-down	dcep	2.5 - 4.5 mm	GOTHENBURG
UNITOR Special 303N	ABS	3Y	All	ac / dcen	2.0 - 5.0 mm	GOTHENBURG

TAIWAN R.O.C.

China Electrode and Machinery Co. Ltd.

C-11	ABS	2	All	ac / dc	2.6 - 4.8 mm	TAIPEI
C-11	AWS A5.1-04	E6011	All	ac / dcep	2.6 - 4.8 mm	TAIPEI
C-13	AWS A5.1-04	E6013	All	ac / dcep	2.0 - 5.0 mm	TAIPEI
C-316L	AWS A5.4-92	E316L-16	F, HF	ac / dcep	5.0 mm	TAIPEI
C-316L	AWS A5.4-92	E316L-16	All	ac / dcep	2.6 - 4.0 mm	TAIPEI
C-76	AWS A5.1-04	E7016	F, HF	ac / dcep	5.0 - 6.0 mm	TAIPEI
C-76	AWS A5.1-04	E7016	ALL	ac / dcep	2.6 - 4.8 mm	TAIPEI
C-78	AWS A5.1-04	E7018	F, HF	ac / dcep	4.8 - 5.0 mm	TAIPEI
C-78	AWS A5.1-04	E7018	ALL	ac / dcep	2.6 - 4.0 mm	TAIPEI
C-78-1	AWS A5.1-04	E7018-1	F, HF	ac / dcep	4.8 mm	TAIPEI
C-78-1	AWS A5.1-04	E7018-1	All	ac / dcep	2.6 - 4.0 mm	TAIPEI

Goodweld Corporation

D-200	ABS	3	All	ac / dc	3.2 - 6.0 mm	KAOHSIUNG
G03	ABS	3	All	ac / dc	3.2 - 5.0 mm	KAOHSIUNG
G308	AWS A5.4-92	E308-16	F, HF	ac / dcep	5.0 mm	KAOHSIUNG

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
TAIWAN R.O.C.						
Goodweld Corporation						
G308	AWS A5.4-92	E308-16	All	ac / dcep	2.6 - 4.0 mm	KAOHSIUNG
G308L	AWS A5.4-92	E308L-16	F, HF	ac / dcep	5.0 mm	KAOHSIUNG
G308L	AWS A5.4-92	E308L-16	All	ac / dcep	2.6 - 4.0 mm	KAOHSIUNG
G316L	AWS A5.4-92	E316L-16	All	ac / dcep	2.6 - 4.0 mm	KAOHSIUNG
GL 52	ABS	3Y	F	ac / dc	6.0 mm	KAOHSIUNG
GL 52	ABS	3Y	All	ac / dc	3.2 - 5.0 mm	KAOHSIUNG
GL52-18	ABS	3Y**	All	ac / dcep	3.2 - 5.0 mm	KAOHSIUNG
**Mechanical properties meet AWS A5.1-04 E7018-1						
GL52-26	ABS	3Y	F**	ac / dcep	4.0 - 8.0 mm	KAOHSIUNG
**Recommended by manufacturer for (HF) gravity welding with 4.0 - 8.0 mm / 450-700 mm electrodes.						
Good EX-55V	ABS	3Y400	V-down	ac / dcep	3.2 - 5.0 mm	KAOHSIUNG

Sorex Welding Co., Ltd.

SL-50	AWS A5.1	E7016	All	ac / dcep	3.2 - 5.0 mm	KAOHSIUNG
SR-86B2	AWS A5.5	E8016-B2	All	ac / dcep	3.2 - 5.0 mm	KAOHSIUNG
SR-96B3	AWS A5.5	E9016-B3	All	ac / dcep	3.2 - 5.0 mm	KAOHSIUNG

Tien Tai Electrode Co., Ltd.

E-10	ABS	3	All	ac / dc	3.2 - 6.0 mm	KAOHSIUNG
R-13	AWS A5.1-04	E6013	All	ac / dc	2.6 - 4.8 mm	KAOHSIUNG
TC-10	AWS A5.1-04	E6010	All	dcep	3.2 - 4.8 mm	KAOHSIUNG
TC-11	AWS A5.1-04	E6011	All	ac / dcep	2.6 - 4.8 mm	KAOHSIUNG
TL-50	ABS	3Y	F	ac / dcep	6.0 mm	KAOHSIUNG
TL-50	ABS	3Y	All	ac / dcep	3.2 - 5.0 mm	KAOHSIUNG
TL-508	ABS	3Y	All	ac / dcep	2.6 - 6.0 mm	KAOHSIUNG
TL-50D	ABS	3Y	All, V-down	ac / dcep	3.2 - 5.0 mm	KAOHSIUNG
TL-581	ABS	4Y	All	ac / dcep	2.6 - 5.0 mm	KAOHSIUNG
TLH-581	ABS	4Y400 H5	All	ac / dcep	2.6 - 5.0 mm	KAOHSIUNG
TNC-70B	AWS A5.11-97	ENiCrFe-2	F, H	dcep	4.8 mm	KAOHSIUNG
TNC-70B	AWS A5.11-97	ENiCrFe-2	All	dcep	2.0 - 4.0 mm	KAOHSIUNG

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
TAIWAN R.O.C.						
Tien Tai Electrode Co., Ltd.						
TNC-70C	AWS A5.11-97	ENiCrFe-3	F, H	dcep	4.8 mm	KAOHSIUNG
TNC-70C	AWS A5.11-97	ENiCrFe-3	All	dcep	2.0 - 4.0 mm	KAOHSIUNG
TS-308	AWS A5.4-92	E308-16	F, H	ac / dcep	4.8 mm	KAOHSIUNG
TS-308	AWS A5.4-92	E308-16	All	ac / dcep	2.4 - 4.0 mm	KAOHSIUNG
TS-308L	AWS A5.4-92	E308L-16	F, H	ac / dcep	4.8 mm	KAOHSIUNG
TS-308L	AWS A5.4-92	E308L-16	All	ac / dcep	2.4 - 4.0 mm	KAOHSIUNG
TS-309	AWS A5.4-92	E309-16	F, H	ac / dcep	4.8 mm	KAOHSIUNG
TS-309	AWS A5.4-92	E309-16	All	ac / dcep	2.4 - 4.0 mm	KAOHSIUNG
TS-309L	AWS A5.4-92	E309L-16	F, H	ac / dcep	4.8 mm	KAOHSIUNG
TS-309L	AWS A5.4-92	E309L-16	All	ac / dcep	2.4 - 4.0 mm	KAOHSIUNG
TS-316	AWS A5.4-92	E316-16	F, H	ac / dcep	4.8 mm	KAOHSIUNG
TS-316	AWS A5.4-92	E316-16	All	ac / dcep	2.4 - 4.0 mm	KAOHSIUNG
TS-316L	AWS A5.4-92	E316L-16	F, H	ac / dcep	4.8 mm	KAOHSIUNG
TS-316L	AWS A5.4-92	E316L-16	All	ac / dcep	2.4 - 4.0 mm	KAOHSIUNG
TS-347	AWS A5.4-92	E347-16	F, H	ac / dcep	4.8 mm	KAOHSIUNG
TS-347	AWS A5.4-92	E347-16	All	ac / dcep	2.0 - 4.0 mm	KAOHSIUNG

Wu Huang-Lu Co., Ltd.

A-311	ABS	3	All	ac / dc	2.4 - 4.8 mm	TAIPEI
B-14a	ABS	3	All	ac / dc	2.6 - 6.0 mm	TAIPEI
LB-52D	ABS	3Y	All	ac / dc	3.2 - 5.0 mm	TAIPEI
LB-52h	ABS	3Y	All	ac / dc	3.2 - 6.0 mm	TAIPEI
LS-526	ABS	3Y	F	ac / dc	4.0 - 8.0 mm	TAIPEI
LS-78	ABS	3Y	All	ac / dc	2.4 - 6.0 mm	TAIPEI

THAILAND

Gemini (Thailand) Co., Ltd.

Gemini 7018-1	ABS	4Y	OH, V-up	ac / dcep	2.6 - 4.0 mm	BANGKOK
Gemini 7018-1	ABS	4Y	F, H	ac / dcep	2.6 - 5.0 mm	BANGKOK

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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THAILAND

Gemini (Thailand) Co., Ltd.

Gemini 7018LT	ABS	3Y	All, HF	ac / dc	2.6 - 5.0 mm	BANGKOK
Gemini D1	ABS	2	All	ac / dcep	2.6 - 5.0 mm	BANGKOK
Gemini L1	ABS	3Y H5	All	ac / dcep	2.6 - 5.0 mm	BANGKOK
Gemini LD52	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	BANGKOK
Gemini LD52U	ABS	3Y*	All	ac / dcep	2.6 - 5.0 mm	BANGKOK
* Non-low hydrogen electrode; requires special approval for use on higher-strength steel.						
Gemini RB36	ABS	2	All, V-down	ac / dcep	2.6 - 5.0 mm	BANGKOK
Nakata 26	ABS	2	All, V-down	ac / dc	2.6 - 5.0 mm	BANGKOK

Thai Tokuden Co., Ltd.

Sumirod LF-52	ABS	3Y*	All	ac/ dc	2.6 - 5.0 mm	BANGKOK
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Thai-Kobe Welding Co., Ltd.

B-14	ABS	3	All	ac/ dc	2.6 - 4.0 mm	BANGKOK
LB-52	ABS	3Y	All	ac/ dcep	2.6 - 5.0 mm	BANGKOK
LB-52-18	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	BANGKOK
LB-52U	ABS	3Y	All	ac / dc	2.6 - 4.0 mm	BANGKOK
RB-26	ABS	2	All	ac / dc	2.6 - 5.0 mm	BANGKOK
Sumirod LF-52	ABS	3Y*	All	ac / dc	2.6 - 5.0 mm	BANGKOK
*Non-low hydrogen electrode, requires special approval for use with higher strength steel.						

Yawata Electrode (Thailand) Co., Ltd.

Yawata 308L-16	AWS A5.4-06	E308L-16	All	ac / dcep	2.6 - 4.0 mm	BANGKOK
Yawata 7018	ABS	3Y	All	ac / dcep	2.6 - 5.0 mm	BANGKOK
Yawata BT-52	ABS	2	All, V-down	ac / dcen	2.6 - 4.0 mm	BANGKOK
Yawata FT-51	ABS	2	All, V-down	ac / dc	2.6 - 5.0 mm	BANGKOK
Yawata G-300	ABS	3	All	ac / dc	2.6 - 5.0 mm	BANGKOK
Yawata L-55	ABS	3Y	All, V-down	ac / dc	2.6 - 5.0 mm	BANGKOK
Yawata L-55W	ABS	3Y H5	All	ac / dcep	2.6 - 5.0 mm	BANGKOK

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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THAILAND

Yawata Electrode (Thailand) Co., Ltd.

Yawata L-59	ABS	3Y H5	All	ac / dcep	2.6 - 5.0 mm	BANGKOK
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TURKEY

Gedik Kaynak Sanayi Ve Ticaret A.S.

Fox Cel	ABS	3	All	dcep	2.5 - 5.0 mm	ISTANBUL
Fox EV 47S	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	ISTANBUL
Fox EV 50	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	ISTANBUL
Fox EV 55	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	ISTANBUL
Fox EV 60-S	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	ISTANBUL
Fox OHV	ABS	2	All	ac / dcen	2.5 - 5.0 mm	ISTANBUL
Fox Sumer	ABS	2	All	ac / dcen	2.0 - 5.0 mm	ISTANBUL
Geka Cem	ABS	2	F	ac / dcen	3.25 - 5.0 mm	ISTANBUL
Geka Elit	ABS	2	All	ac / dcen	2.0 - 5.0 mm	ISTANBUL
Geka Elox R 2209	AWS A5.4	E2209-17	All	ac / dcep	2.5 - 4.0 mm	ISTANBUL
Geka Elox R 308 L	AWS A5.4	E308L-16	All	ac / dcep	2.5 - 4.0 mm	ISTANBUL
Geka Elox R 309 L	AWS A5.4	E309L-16	All	ac / dcep	2.5 - 4.0 mm	ISTANBUL
Geka Elox R 312 L	AWS A5.4	E312L-16	All	ac / dcep	2.5 - 4.0 mm	ISTANBUL
Geka Elox R 316 L	AWS A5.4	E316L-16	All	ac / dcep	2.5 - 4.0 mm	ISTANBUL
Geka Laser B47	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	ISTANBUL
Geka Laser B47-A	ABS	3Y H5	All	ac / dcep	2.5 - 5.0 mm	ISTANBUL
Geka Laser B50	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	ISTANBUL
Geka Laser B55	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	ISTANBUL
Geka Pantera	ABS	2	All	ac / dcen	2.0 - 5.0 mm	ISTANBUL
Geka Tempo B 48	ABS	3Y H5	All	dcep	2.5 - 5.0 mm	ISTANBUL
Geka Tempo B 85 M	AWS A5.5	E11018M	All	dcep	2.5 - 5.0 mm	ISTANBUL

UNITED STATES

Arcos Industries, LLC

308 / 308L-16	AWS A5.4	E308 / E308L-16	All	dcep	3/32" - 3/16"	PHILADELPHIA
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Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
UNITED STATES						
Arcos Industries, LLC						
309 / 309L-16	AWS A5.4	E309 / E309L-16	All	dcep	3/32" - 3/16"	PHILADELPHIA
316 / 316L-16	AWS A5.4	E316 / E316L-16	All	dcep	3/32" - 3/16"	PHILADELPHIA
Esab Welding & Cutting Products						
Arcaloy 308/308H-16	AWS A5.4	E308/308H-16			1/16 - 1/4"	BALTIMORE
Arcaloy 309/309H-16	AWS A5.4	E309-16			1/16 - 1/4"	BALTIMORE
Arcaloy 309L-16	AWS A5.4	E309L-16	All	ac / dcep	3/32 - 1/8"	BALTIMORE
Arcaloy 316/316H-16	AWS A5.4	E316/316H-16			1/16 - 1/4"	BALTIMORE
Arcaloy 316L-16	AWS A5.4	E316L-16	All	ac / dcep	3/32 - 1/8"	BALTIMORE
Arcaloy 7018 Acclaim	ABS	4Y H5 (E7018-H4R)	All	dcep	3/32 - 3/16"	BALTIMORE
Atom Arc 10018	AWS A5.5	E10018-M	All	dcep	3/32" - 1/4"	BALTIMORE
Atom Arc 12018-M2	ABS	4YQ690 H5	All	dcep	3/32"	BALTIMORE
Atom Arc 7018	ABS	2Y	All	ac / dcep	3/32 - 1/4"	BALTIMORE
Atom Arc 7018	AWS A5.1	E7018			3/32 - 1/4"	BALTIMORE
Suitable for one-sided welding in F, V positions with grooved refrac-T-Back Backing materials						
Atom Arc 7018-1	ABS	3Y	All	ac / dcep	3/32 - 1/4"	BALTIMORE
Atom Arc 7018-1	AWS A5.1	E7018-1			3/32 - 1/4"	BALTIMORE
Atom Arc 7018-M	ABS	3Y H5	All	ac / dcep	3/32 - 7/32"	BALTIMORE
Atom Arc 7018-MO	AWS A5.5	E7018-A1			3/32 - 1/4"	BALTIMORE
Atom Arc 8018	ABS	3Y	All	ac / dcep	3/32 - 1/4"	BALTIMORE

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
UNITED STATES						
Esab Welding & Cutting Products						
Atom Arc 8018	AWS A5.5	E8018-C3			3/32 - 1/4"	BALTIMORE
Atom Arc 8018-C1	ABS	3Y	All	ac / dcep	3/32 - 1/4"	BALTIMORE
Atom Arc 8018-CM	AWS A5.5	E8018-B2			3/32 - 1/4"	BALTIMORE
Atom Arc 9018	ABS	3Y	All	ac / dcep	3/32 - 1/4"	BALTIMORE
Atom Arc 9018-CM	AWS A5.5	E9018-B3			3/32 - 1/4"	BALTIMORE
Atom Arc T	AWS A5.5	E11018-M			3/32 - 1/4"	BALTIMORE
Cryoarc 316L-15	AWS A5.4	E316L-15			3/32" - 1/4"	BALTIMORE
Sureweld 10P	AWS A5.1	E6010			3/32 - 1/4"	BALTIMORE
Sureweld 10P Plus	AWS A5.1	E6010			3/32 - 7/32"	BALTIMORE
Sureweld 7024	ABS	2	F	ac /dc	1/8 - 1/4"	BALTIMORE
Non-low hydrogen electrode, requires special approval for use on higher strength steel.						
Sureweld SW-14	AWS A5.1	E6011			3/32 - 1/4"	BALTIMORE

Hobart Brothers SEBU

6010 PM	AWS A5.1-04	E6010	All	dc	3/32" - 3/16"	TOLEDO
7010 PM	AWS A5.1-04	E7010-P1	All	dc	3/32" - 3/16"	TOLEDO
Hoballoy 10018D2	AWS A5.5-06	E10018-D2 H4R	All	ac / dcep	3/32 - 1/4"	TOLEDO
Hoballoy 10018M	AWS A5.5-06	E10018M H4R	All	dcep	3/32" - 5/32"	TOLEDO
Hoballoy 11018M	AWS A5.5-96	E11018M H4R	All	dcep	3/32 - 1/4"	TOLEDO
Hoballoy 12018M	AWS A5.5-96	E12018M H4R	All	dcep	3/32 - 1/4"	TOLEDO
Hoballoy 7018A1	AWS A5.5-96	E7018-A1 H4R	All	ac / dcep	3/32" - 5/32"	TOLEDO
Hoballoy 8018B2	AWS A5.5-96	E8018-B2 H4R	All	ac / dcep	3/32 - 3/16"	TOLEDO
Hoballoy 8018B2L	AWS A5.5-96	E8018-B2L H4R	All	ac / dcep	3/32 - 1/4"	TOLEDO
Hoballoy 8018C1	AWS A5.5-96	E8018-C1 H4	All	ac / dcep	3/32 - 3/16"	TOLEDO
Hoballoy 8018C2	AWS A5.5-96	E8018-C2 H4	All	ac / dcep	3/32 - 1/4"	TOLEDO
Hoballoy 8018C3	AWS A5.5-96	E8018-C3 H4	All	ac / dcep	3/32 - 3/16"	TOLEDO

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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UNITED STATES

Hobart Brothers SEBU

Hoballoy 9018B3	AWS A5.5-96	E9018-B3 H4R	All	ac / dcep	3/32 - 1/4"	TOLEDO
Hoballoy 9018B3L	AWS A5.5-96	E8018-B3L H4R	All	ac / dcep	3/32 - 3/16"	TOLEDO
Hoballoy 9018M	AWS A5.5-96	E9018M H4R	All	ac / dcep	3/32 - 1/4"	TOLEDO
Hobart 14 A	AWS A5.1-04	E7014	All	ac / dcen	3/32 - 3/16"	TOLEDO
Hobart 24	ABS	3	F	ac / dcen	3/32 - 1/4"	TOLEDO
Hobart 24	AWS A5.1-04	E7024-1	F	ac / dcen	3/32 - 1/4"	TOLEDO
Hobart 335A ALSOMARKETED UNDER MCKAY 6011	AWS A5.1-04	E6011	All	ac / dcep	3/32 - 3/16"	TOLEDO
Hobart 335C	AWS A5.1-04	E6011	All	ac / dcep	3/32 - 3/16"	TOLEDO
Hobart 418	ABS	3Y H5	All	ac / dcep	3/32 - 1/4"	TOLEDO
Hobart 418	AWS A5.1-04	E7018 H4R	All	ac / dcep	3/32 - 1/4"	TOLEDO
Hobart 447A	AWS A5.1-04	E6013	All	ac / dcen	3/32 - 3/16"	TOLEDO
Hobart 447C	AWS A5.1-04	E6013	All	ac / dcen	3/32" - 5/32"	TOLEDO
Hobart 718MC	ABS	3Y H5	All	ac / dcen	3/32" - 1/4"	TOLEDO
Hobart 718MC	AWS A5.1-04	E7018-1 H4R	All	ac / dcep	3/32" - 1/4"	TOLEDO
McKay 7018 XLM **Suitable for V-down fillet welding	AWS A5.1-04	E7018-1 H4R	All**	ac / dcep	3/32" - 1/4"	TOLEDO
Pipemaster 60	AWS A5.1-04	E6010	All	dcep	3/32" - 3/16"	TOLEDO
Pipemaster 70	AWS A5.5-96	E7010-P1	All	dcep	3/32" - 3/16"	TOLEDO
Pipemaster 80	AWS A5.5-96	E8010-P1	All	dcep	3/32" - 3/16"	TOLEDO
Pipemaster Pro 60	AWS A5.1-04	E6010	All	dcep	3/32" - 3/16"	TOLEDO
Sterling AP 308/308L	AWS A5.4	E308/308L	All	ac / dcep	1/8" - 3/16"	TOLEDO
Sterling AP 309/309L	AWS A5.4	E309/309L	All	ac / dcep	1/8" - 3/16"	TOLEDO
Sterling AP 316/316L	AWS A5.4	E316/316L	All	ac / dcep	1/8" - 3/16"	TOLEDO

Lincoln Electric Company

Blue Max 308 / 308L AC-DC	AWS A5.4	E308-17 / E308L-17	All	ac / dcep	3/32 - 5/32"	CLEVELAND
Blue Max 309 / 309L AC-DC	AWS A5.4	E309-17 / E309L-17	All	ac / dcep	3/32 - 3/16"	CLEVELAND
Blue Max 316 / 316L AC-DC	AWS A5.4	E316-17 / E316L-17	All	ac / dcep	3/32 - 5/32"	CLEVELAND
Easy-Arc 7018MR	AWS A5.1	E7018			3/32 - 1/4"	CLEVELAND

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
UNITED STATES						
Lincoln Electric Company						
Easy-Arc 7024	AWS A5.1	E7024			3/32 - 1/4"	CLEVELAND
Excalibur 11018-D2 MR	ABS	3YQ620	All	dcep	3/32 - 5/32"	CLEVELAND
Excalibur 11018M MR	ABS	4YQ690 H5	All	dcep	3/32 - 3/16"	CLEVELAND
Excalibur 11018M MR	AWS A5.5	E11018M-H4R	All	dcep	3/32 - 3/16"	CLEVELAND
Excalibur 308 / 308H-16	AWS A5.4	E308-16, E308H-16			3/32 - 3/16"	CLEVELAND
Excalibur 308 / 308L-15	AWS A5.4	E308-15, E308L-15			3/32 - 1/8"	CLEVELAND
Excalibur 308 / 308L-16	AWS A5.4	E308L-16			3/32 - 3/16"	CLEVELAND
Excalibur 308 / 308L-17	AWS A5.4	E308-17 / E308L-17	All	ac / dcep	3/32 - 5/32"	CLEVELAND
Excalibur 309 / 309L-15	AWS A5.4	E309-15, E309L-15	All	dcep	3/32 - 1/8"	CLEVELAND
Excalibur 309 / 309L-16	AWS A5.4	E309-16, E309L-16			3/32 - 3/16"	CLEVELAND
Excalibur 309 / 309L-17	AWS A5.4	E309-17 / E309L-17	All	ac / dcep	3/32 - 3/16"	CLEVELAND
Excalibur 316 / 316L-15	AWS A5.4	E316-15, E316L-15			3/32 - 1/8"	CLEVELAND
Excalibur 316 / 316L-16	AWS A5.4	E316-16, E316L-16			3/32 - 3/16"	CLEVELAND
Excalibur 316 / 316L-17	AWS A5.4	E316-17 / E316L-17	All	ac / dcep	3/32 - 5/32"	CLEVELAND
Excalibur 7018 MR	ABS	3Y H5	All	ac / dcep	3/32 - 3/16"	CLEVELAND
Excalibur 7018-1 MR	ABS	3Y H5	All	ac / dcep	3/32 - 1/4"	CLEVELAND
Excalibur 7018-1 MR	AWS A5.1	E7018M	All	ac / dcep	3/32 - 1/4"	CLEVELAND
Excalibur 7018-A1 MR	AWS A5.5	E7018-A1-H4R	All	ac / dcep	3/32 - 3/16"	CLEVELAND
Excalibur 7018M MR	ABS	3Y H5	All	dcep	3/32 - 5/32"	CLEVELAND
Excalibur 7028	ABS	3Y (Fillet Only)	F, H	ac / dcep	5/32 - 7/32"	CLEVELAND
Excalibur 8018-C3 MR	AWS A5.5	E8018-C3-H4R	All	ac / dcep	3/32 - 1/4"	CLEVELAND
Excalibur 9018M MR	AWS A5.5	E9018M-H4R	All	dcep	3/32 - 3/16"	CLEVELAND
Fleetweld 35	AWS A5.1	E6011			3/32 - 1/4"	CLEVELAND
Fleetweld 35LS	AWS A5.1	E6011			1/8 - 5/32"	CLEVELAND
Fleetweld 37	AWS A5.1	E6013			1/16 - 3/16"	CLEVELAND
Fleetweld 47	AWS A5.1	E7014			3/32 - 3/16"	CLEVELAND
Fleetweld 5P	AWS A5.1	E6010			3/32 - 1/4"	CLEVELAND
Fleetweld 5P+	AWS A5.1	E6010			3/32 - 1/8"	CLEVELAND
Jet - LH78 MR	AWS A5.1	E7018			3/32 - 1/4"	CLEVELAND

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
UNITED STATES						
Lincoln Electric Company						
Jetweld 1	AWS A5.1	E7024-1			3/32 - 1/4"	CLEVELAND
Jetweld 2	AWS A5.1	E6027			5/32 - 1/4"	CLEVELAND
Jetweld LH-70	ABS	3Y	All	ac / dcep	3/32 - 5/16"	CLEVELAND
Jetweld LH-70	AWS A5.1	E7018			3/32 - 5/16"	CLEVELAND
Murex 6011C	AWS A5.1	E6011			3/32 - 3/16"	CLEVELAND
Murex 7018 MR	AWS A5.1	E7018			3/32 - 1/4"	CLEVELAND
Murex 7024	AWS A5.1	E7024			3/32 - 1/4"	CLEVELAND
Murex B 7018 MR	AWS A5.1	E7018			3/32 - 1/4"	CLEVELAND
Pipeliner 16P	AWS A5.1	E7016-H4	All	ac / dcep	2.5 - 4.0 mm	CLEVELAND
Pipeliner 18P	AWS A5.5	E8018-G	All	ac / dcep	3.2 - 4.0 mm	CLEVELAND
Pipeliner 6P+	AWS A5.1	E6010	F	dcep	2.5 - 4.0 mm	CLEVELAND
Pipeliner 7P+	AWS A5.5-06	E7010-P1	F	dcep	3.2 - 5.0 mm	CLEVELAND
Pipeliner 8P+	AWS A5.5-06	E8010-P1	F	dcep	3.2 - 5.0 mm	CLEVELAND
Pipeliner LH-D80	AWS A5.5	E8045-P2 H4R	All	dcep	3.2 - 4.5 mm	CLEVELAND
Pipeliner LH-D90	AWS A5.5	E9045-P2 H4R	All	dcep	3.2 - 4.5 mm	CLEVELAND
Red Baron 308 / 308H MR	AWS A5.4	E308-16, E308H-16	All	ac / dcep	3/32 - 3/16"	CLEVELAND
Red Baron 308 / 308L-V MR	AWS A5.4	E308-15, E308L-15			3/32 - 1/8"	CLEVELAND
Red Baron 308L MR	AWS A5.4	E308L-16			3/32 - 3/16"	CLEVELAND
Red Baron 309 / 309L MR	AWS A5.4	E309-16, E309L-16			3/32 - 3/16"	CLEVELAND
Red Baron 309 / 309L-V MR	AWS A5.4	E309-15, E309L-15	All	dcep	3/32 - 1/8"	CLEVELAND
Red Baron 316 / 316L MR	AWS A5.4	E316-16, E316L-16			3/32 - 3/16"	CLEVELAND
Red Baron 316 / 316L-V MR	AWS A5.4	E316-15, E316L-15			3/32 - 1/8"	CLEVELAND
Shield Arc 70+	AWS A5.5	E8010-G		dcep	1/8 - 3/16"	CLEVELAND
Shield Arc 85	AWS A5.5	E7010-A1			3/32 - 3/16"	CLEVELAND
Shield Arc HYP+	AWS A5.5	E7010-P1	All	dcep	1/8 - 3/16"	CLEVELAND
Selectrode Industries, Inc.						
1162	ABS	3Y	All	ac / dcep	2.5 - 4.0 mm	CLEVELAND

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
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UNITED STATES

Techalloy Welding Products

Tech-Rod 2594-16	AWS A5.4	E259NL	All	ac / dcep	3/32" - 5/32"	PHILADELPHIA
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Washington Alloy Co., Ltd.

E308-16	AWS A5.4	E308-16	All	ac / dcep	3/32 - 5/32"	LOS ANGELES
E308-16	AWS A5.4	E308-16	F, H	ac / dcep	3/16"	LOS ANGELES
E308L-16	AWS A5.4	E308L-16	All	ac / dcep	3/32 - 5/32"	LOS ANGELES
E308L-16	AWS A5.4	E308L-16	F, H	ac / dcep	3/16"	LOS ANGELES
E309-16	AWS A5.4	E309-16	All	ac / dcep	3/32 - 5/32"	LOS ANGELES
E309-16	AWS A5.4	E309-16	F, H	ac / dcep	3/16"	LOS ANGELES
E309L-16	AWS A5.4	E309L-16	All	ac / dcep	3/32 - 5/32"	LOS ANGELES
E309L-16	AWS A5.4	E309L-16	F, H	ac / dcep	3/16"	LOS ANGELES
E310-16	AWS A5.4	E310-16	All	ac / dcep	3/32 - 5/32"	LOS ANGELES
E310-16	AWS A5.4	E310-16	F, H	ac / dcep	3/16"	LOS ANGELES
E312-16	AWS A5.4	E312-16	F, H	ac / dcep	3/16"	LOS ANGELES
E312-16	AWS A5.4	E312-16	All	ac / dcep	3/32 - 5/32"	LOS ANGELES
E316-16	AWS A5.4	E316-16	F, H	ac / dcep	3/16"	LOS ANGELES
E316-16	AWS A5.4	E316-16	All	ac / dcep	3/32 - 5/32"	LOS ANGELES
E316L-16	AWS A5.4	E316L-16	All	ac / dcep	3/32 - 5/32"	LOS ANGELES
E316L-16	AWS A5.4	E316L-16	F, H	ac / dcep	3/16"	LOS ANGELES

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
UNITED STATES						
Washington Alloy Co., Ltd.						
E347-16	AWS A5.4	E347-16	All	ac / dcep	3/32 - 5/32"	LOS ANGELES
E347-16	AWS A5.4	E347-16	F, H	ac / dcep	3/16"	LOS ANGELES
E6011	ABS	3	All	ac / dcep	3/32 - 1/4"	LOS ANGELES
E7018	ABS	3Y	All	ac / dcep	3/32 - 1/4"	LOS ANGELES
VENEZUELA						
Lincoln Soldaduras de Venezuela C.A.						
Gricon 15	ABS	3	All	ac / dcep	2.5 - 6.0 mm	CARACAS
Gricon 29	ABS	2	All	dcep	2.5 - 5.0 mm	CARACAS
VIETNAM						
Chosun Vina Co., Ltd.						
LC-300	ABS	3Y	All	ac / dcep / dcen	2.6 - 5.0 mm	HO CHI MINH CITY
LC-318	ABS	3Y	All	ac / dcep / dcen	2.6 - 5.0 mm	HO CHI MINH CITY
Hyundai Welding Vina Co., Ltd.						
Supercored 71Hi	ABS	4YSA H5	All, V-down	dcep	1.2 - 1.4 mm	HO CHI MINH CITY
Kuang Tai Metal (Vietnam) Co. Ltd.						
KL-508	ABS	3Y	All	ac / dcep / dcen	2.6 - 5.0 mm	HO CHI MINH CITY
KL-516	ABS	3Y	All	ac / dcep / dcen	2.6 - 5.0 mm	HO CHI MINH CITY
KT-260	ABS	3	All	ac / dcep / dcen	2.6 - 5.0 mm	HO CHI MINH CITY
Nam Trieu Weld Material Industry Joint Stock Company (Nawelco)						
NA7016	ABS	3Y	All	dcep	2.5 - 4.0 mm	HO CHI MINH CITY
NA7018	ABS	3Y*	All	dcep	2.5 - 4.0 mm	HO CHI MINH CITY
*Non-low hydrogen electrode, requires special approval for use with higher strength steel.						
Viet Duc Welding Electrode Joint Stock Company (Viwelco)						
E7016-VD	ABS	3Y	All	ac / dcep	3.2 - 4.0 mm	HO CHI MINH CITY

Shielded Metal Arc Welding

Trade Name	Spec	Grade	Position	Current Polarity	Sizes	Port Office
VIETNAM						
Viet Duc Welding Electrode Joint Stock Company (Viwelco)						
E7018-VD	ABS	3Y	All	ac / dcep	3.2 - 4.0 mm	HO CHI MINH CITY
N46-VD	ABS	2	All	ac / dcen / dcep	3.2 - 4.0 mm	HO CHI MINH CITY
