

S-777Q

High-speed SAW flux for thin to medium plates with strong porosity resistance and easy slag removal

SUBARC (SAW)

Introduction



The S-777Q flux is engineered for butt, flat, and beam welding of thin to medium thickness plates, delivering low current, high travel speed performance. Ideal for miniature LPG tanks, pipes, and structures, it ensures both productivity and precision.

Optimized for 1.6-2.4mm (1/16~3/32in) single or twin wire, it is fully compatible with M-12K, H-14, L-8, L-12, and M-13K wires. The S-777Q excels in real-world conditions, being insensitive to oil, rust, scale, and dirt. With excellent slag detachability in narrow grooves and strong porosity resistance, it guarantees clean, reliable welds even at high speed.



Certified under JIS Z3352 and EN ISO 14174-S A AR 1, it meets global standards while ensuring practical welding advantages.

Specifications

FLUX	EN ISO 14174	JIS Z3352
S-777Q	S A AR1	S A AR1

FLUX	EN ISO 14174	JIS Z3352
M-12K	F7A2-EM12K	S2Si
H-14	F7A2-EH14	S4
L-8	F7AZ-EL8	S1
L-12	F7AZ-EL12	S1
M-13K	F7A0-EM13K	-

Features

- Easy to remove slag
- High speed welding
- Horizontal and flat fillet welding
- Density : 1.0g/cm³
- Basicity Index : 0.6

Typical Mechanical Properties of All-Weld Metal

Wire	AWS	EN ISO 14171	Tensile Test			Impact Test (CVN – Joule)	
			YS (MPa)	TS (MPa)	EL (%)	Temp °C(°F)	Avg. J (ft/lbs)
M-12K	F7A2- EM12K	S2Si	570	630	28	-30 (-20)	90 (66)
H-14	F7A2- EH14	S4	609	664	26	-30 (-20)	83 (61)
L-8	F7AZ- EL8	S1	440	530	30	0 (32)	80 (59)
L-12	F7AZ- EL12	S1	470	550	31	0 (32)	75 (55)
M-13K	F7A0- EM13K	-	540	620	24	-20 (0)	50 (37)

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Typical Chemical Composition of All-Weld Metal(%)

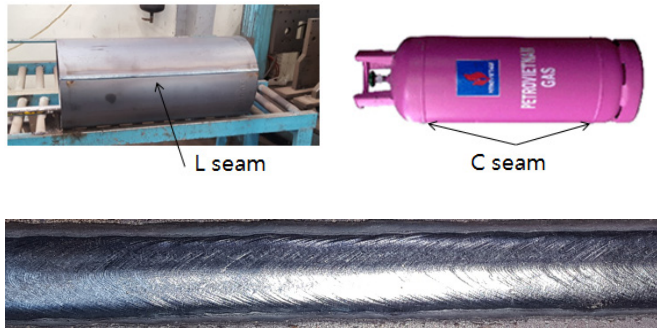
Wire	C	Si	Mn	P	S	BM	Th.(mm)
M-12K	0.09	0.55	1.18	0.015	0.01	A36	25
H-14	0.06	0.81	1.31	0.011	0.02	A36	25
L-8	0.04	0.39	0.83	0.018	0.01	A36	25
L-12	0.04	0.38	0.8	0.02	0.012	A36	25
M-13K	0.07	0.36	1.49	0.018	0.011	A36	25

Typical Welding Parameters

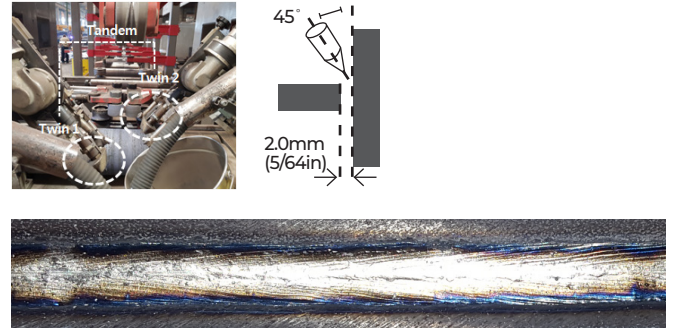
Wire	Wire dia. mm(in)	Groove Design (mm)	Passes	Amps (A)	Volts (V)	Speed cm/min (in/min)
1Pole	2.4 (3/32)	Fillet, Cylinder L-seam	1	500~700	28~32	120~200 (47~79)
Twin	1.6 (1/16)	Fillet	1~2	300~400	26~28	120~200 (47~79)
	2.0 (5/64)	Fillet	1~2	400~700	28~30	120~200 (47~79)

Bead appearance

- LPG gas cylinder & Pipe
- 1Pole, Twin & Twin tandem high speed welding
- 1 pole welding condition (2.4mm (3/32in))
- : DC+ 350~400A/28~30V, 100~150cpm(39~59ipm)

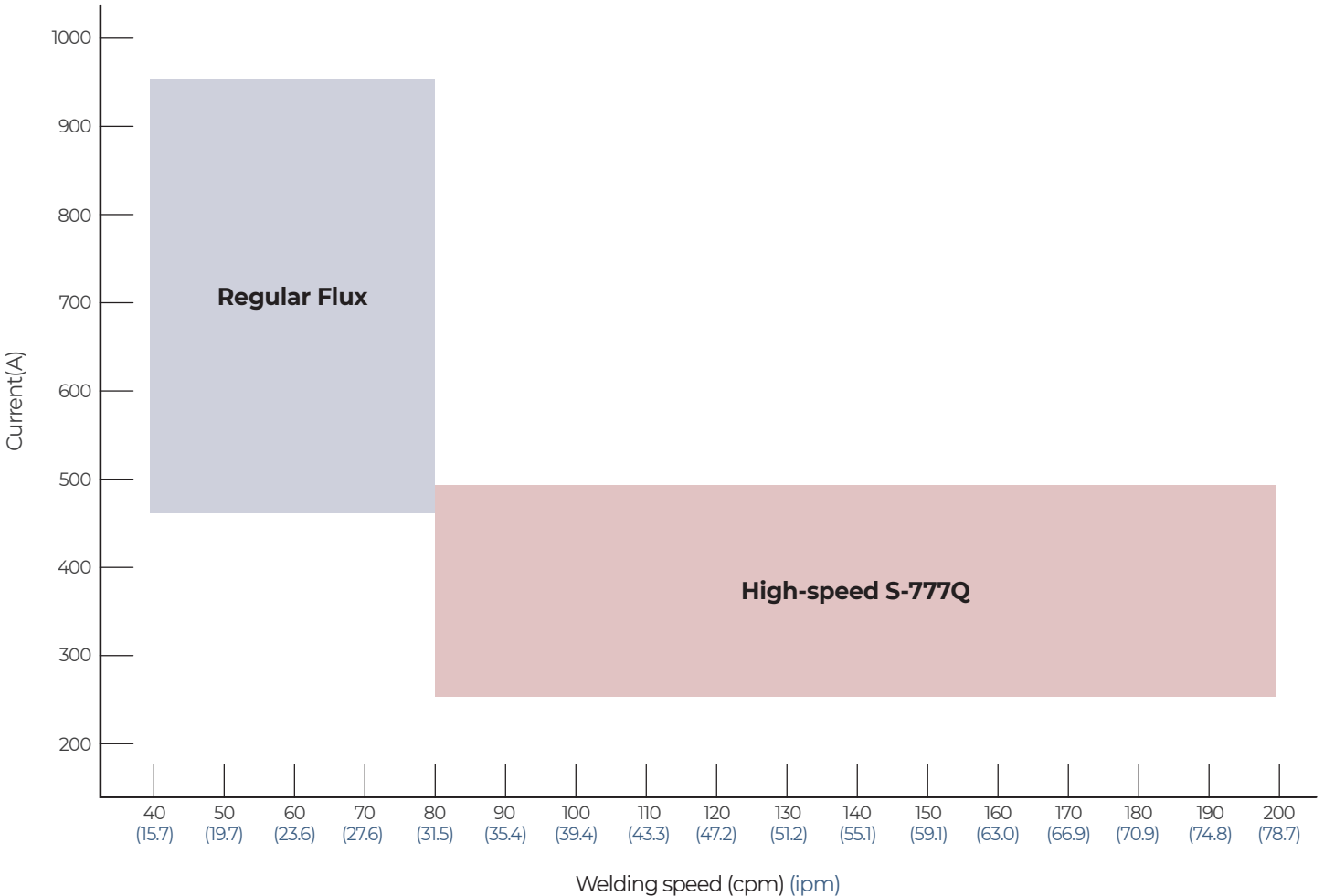


- Structure Steels & Shipbuilding(thin fillet)
- 1Pole, Twin & Twin tandem high speed welding
- Twin tandem welding condition (1.6~2.4mm (1/16~3/32in))
- : DC+ 450~600A/24~28V, 100~150cpm(39~59ipm)



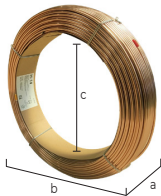
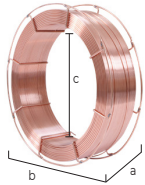
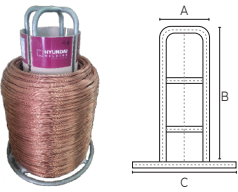
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Welding Condition Range



Packaging

Subarc Wire

Type	Wire	Size mm (in)			
		Wire	a	b	c
Coil Type		25kg (55lbs)	75/100 (3.0/3.9)	410/420 (16.1/16.5)	305/315 (12.0/12.4)
		30kg (66lbs)	95 (3.7)	400 (15.7)	305 (12.0)
		100kg (220lbs)	90/100 (3.5/3.9)	760 (29.9)	630 (24.8)
Basket Spool		150kg (330lbs)	90 (3.5)	790 (31.1)	630 (24.8)
		25kg (55lbs)	103 (4.1)	413-419 (16.3-16.5)	297-303 (11.7-11.9)
MEGA COIL		1000kg (2200lbs)	450 (17.7)	1400 (55.1)	950 (37.4)

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Subarc Flux

Packaging	
TIN CAN	PAPER BAG
	
15kg, 20kg (33lbs, 44lbs)	20kg (44lbs)
SHIELD BAG	MEGA BAG
	
20kg (44lbs)	1000kg (2200lbs)

* SHIELD BAG and MEGA BAG are available from our Korean factory.