

Supercored 309L

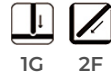
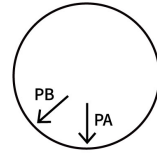
Classification

AWS AWS A5.22/ ASME SFA-5.22 E309LTO-1/-4

JIS Z 3323 TS309L-FB0

EN ISO 17633-A-T 23 12 L R M21/C1 3

Welding Positions



Features

- Flat and horizontal fillet position welding
- High deposition rate and efficiency

Polarity

DC +

Application Areas

- 23.5% Cr-13%Ni Stainless steels
- Dissimilar welds between carbon, low alloy steels to stainless steels
- Buffer layer welding for cladding, overlays

Shielding Gas

100% CO₂

Ar+20~25% CO₂

Approvals

ABS	BV	DNV	LR	CE	DB	TUV
✓	✓	✓	✓	✓	✓	✓

Typical Chemical Composition of All-Weld Metal (wt%)

Shielding Gas	C	Si	Mn	P	S	Cu	Ni	Cr	Mo
100% CO ₂	0.03	0.5	1.6	0.020	0.01	0.11	12.5	23.3	0.12
Ar + 20% CO ₂	0.03	0.5	1.6	0.020	0.006	0.12	12.4	23.5	0.12

Typical Mechanical Properties of All-Weld Metal

Shielding Gas	Tensile Strength MPa(ksi)	Elongation (%)	Temperature °C (°F)	Impact Toughness J (ft·lbs)
100% CO ₂	565(82)	34	-20(0)	42(31)
Ar+20~25% CO ₂	572(83)	34	-20(0)	35(26)

Diameter / Welding Parameters / Packaging

Wire Diameter mm(in)	Current (A)	Packaging
1.2(0.045)	160~220	Spool 5kg(11lbs), 12.5(27.6lbs), 15kg(33lbs)
1.6(1/16)	250~290	

SMAW

GMAW

GTAW

FCAW

Metal-cored Wire

SAW Wire

SAW Flux