

Oxford Alloy® 309/309L

AWS ER309/309L • Stainless Steel



Key Features

- ❖ Reduced carbon levels (0.04% max) that offers increased resistance to inter-granular corrosion.
- ❖ Type 309/309L is ideal for joining stainless steels to themselves or to carbon or low alloy steels.
- ❖ Can be used at temperatures of up to 700°F (371°C).

Conformances

AWS/ASME SFA 5.9
ER309/309L
UNS S30983

Chemical Composition - As required per AWS 5.9

C	Cr	Ni	Mo	Mn	Si	P
0.03 max	23.0-25.0	12.0-14.0	0.75 max	1.0-2.5	0.30-0.65	0.03 max
S	Cu					
0.03 max	0.75 max					

Mechanical Properties - As required by AWS 5.9

	Tensile Strength MPa (ksi)	Yield Strength MPa (ksi)	Elongation %
AWS Requirements	Not Specified		
Typical Results - As welded	590 (86)	400 (58)	40

Typical Welding Parameters

Diameter		Process	Volt	Amps	SAW Flux
in	(mm)				
3/32	2.4	SAW	28-30	275-350	OXF 300
1/8	3.2	SAW	29-32	350-450	OXF 300

Diameters & Packaging

Oxford Alloys USA			Oxford Alloys Asia Pacific		
Diameter (in)	Form	Packaging (lbs)	Diameter (mm)	Form	Packaging (kgs)
3/32	SAW	60 lb Coil 1800 lb pallet	2.4	SAW	25 kg Coil 750 kg pallet
1/8	SAW	60 lb Coil 1800 lb pallet	3.2	SAW	25 kg Coil 750 kg pallet

Actual test results may vary. Refer test result disclaimer on page 160.