Oxford Alloy® 2209

AWS ER2209 • Duplex

Key Features

- Used to weld duplex stainless steels such as (Type 2205).
- The welds offer excellent resistance to stress corrosion, cracking and pitting. The microstructure of the weld metal consists of austenite and ferrite.
- Welding of duplex stainless steels calls for controlled welding parameters to achieve specified mechanical and corrosion resistant properties.

Conformances

AWS/ASME SFA 5.9
ER2209
UNS S39209

Chemical Composition - As required per AWS 5.9						
C	**Mn**	**Si**	**Cr**	**Ni**	**Mo**	**S**
0.03 max	0.50-2.0	0.90 max	21.5-23.5	7.5-9.5	2.5-3.5	0.03 max
P	**Cu**	**N**				
0.03 max	0.75 max	0.08-0.20				

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	720 (104)	560 (81)	26

Typical Welding Parameters					
Diameter		**Process**	**Volt**	**Amps**	**SAW Flux**
in	**(mm)**				
3/32	2.4	SAW	28-30	275-350	Suitable Flux
1/8	3.2	SAW	29-32	350-450	Suitable Flux

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.