OK Autrod 309L

A continous solid corrosion resisting chromium-nickel wire for welding of similar steels, wrought and cast steels of 23% Cr-12% Ni types. The alloy is also used for welding of buffer layers on CMn steels and welding of dissimilar joints. When using the wire for buffer layers and dissimilar joints it is necessary to control the dilution of the weld. OK Autrod 309L has a good general corrosion resistance. When used for joining dissimilar materials the corrosion resistance is of secondary importance.

Specifications	
Classifications	EN ISO 14343-A : G 23 12 L SFA/AWS A5.9 : ER309L
Approvals	CE : EN 13479 UKCA : EN 13479

Approvals are based on factory location. Please contact ESAB for more information.

Alloy Type	Austenitic (with approx. 9 % ferrite) 24 % Cr - 13 % Ni - Low C
Shielding Gas	M12, M13 (EN ISO 14175)

Typical Tensile Properties			
Condition	**Yield Strength**	**Tensile Strength**	**Elongation**
As Welded	440 MPa	600 MPa	32 %

Typical Charpy V-Notch Properties		
Condition	**Testing Temperature**	**Impact Value**
As Welded	20 °C	160 J
As Welded	-60 °C	130 J
As Welded	-110 °C	90 J

Typical Weld Metal Analysis %								
C	**Mn**	**Si**	**S**	**P**	**Ni**	**Cr**	**Mo**	**Cu**
0.03	1.5	0.4	0.005	0.010	12.5	23.5	0.1	0.1

Typical Wire Composition %									
C	**Mn**	**Si**	**S**	**P**	**Ni**	**Cr**	**Mo**	**Cu**	**N**
0.02	1.8	0.4	0.010	0.015	13.4	23.2	0.10	0.1	0.05

Typical Wire Composition %
FN WRC-92
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Deposition Data				
Diameter	**Current**	**Voltage**	**Wire Feed Speed**	**Deposition Rate**
0.8 mm	55-160 A	15-24 V	4.0-17.0 m/min	1.0-4.1 kg/h
0.9 mm	65-220 A	15-28 V	3.5-18.0 m/min	1.1-5.4 kg/h
1.0 mm	80-240 A	15-28 V	4.0-16.0 m/min	1.5-6.0 kg/h
1.2 mm	100-300 A	15-29 V	3.0-14.0 m/min	1.6-7.5 kg/h