Exaton 24.13.LNb

Exaton 24.13.LNb is a niobium-stabilized overalloyed filler metal suitable for overlay welding of carbon and low alloy steels, where a type 347 of overlay is required in one layer. Typical applications is cladding of shells and inlets of hydrocrackers, which has a service temperature of 600-650°C. It is used for MIG/MAG welding as well as for plasma welding and overlay welding using hot wire TIG and mechanized TIG.

Specifications	
Classifications	EN ISO 14343-A : G/W/P 23 12 Nb SFA/AWS A5.9 : ER309L (mod)
Approvals	CE : EN 13479 UKCA : EN 13479

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

Alloy Type	Austenitic (with approx. 15 % ferrite) 24 % Cr - 13 % Ni - Low C - Nb
Shielding Gas	M12, M13 (EN ISO 14175)

Typical Tensile Properties			
Condition	**Yield Strength**	**Tensile Strength**	**Elongation**
As Welded	500 MPa	670 MPa	29 %

Typical Charpy V-Notch Properties		
Condition	**Testing Temperature**	**Impact Value**
As Welded	20 °C	130 J
As Welded	-60 °C	100 J
As Welded	-196 °C	15 J

Typical Wire Composition %									
C	**Mn**	**Si**	**S**	**P**	**Ni**	**Cr**	**Mo**	**Cu**	**N**
0.01	2.1	0.3	0.001	0.013	12.5	24	0.02	0.01	0.05

Typical Wire Composition %		
Nb	**Ti**	**Co**
0.8	0.005	0.02

Typical Weld Metal Analysis %									
C	**Mn**	**Si**	**S**	**P**	**Ni**	**Cr**	**Mo**	**Cu**	**N**
0.02	2.2	0.2	0.001	0.012	12.5	23.2	0.01	0.01	0.07

Typical Weld Metal Analysis %		
Nb	**Co**	**FN deLong**
0.8	0.02	13

Recommended Welding Parameters			
Current	**Wire Diameter**	**Voltage**	**Wire Feed Speed**
60-220 A	1.0 mm	15-28 V	4.0-12.0 mm/min
150-260 A	1.2 mm	24-29 V	3.0-10.0 mm/min