

Exaton 31S

Exaton 31S is a neutral welding flux for submerged arc welding giving good slag removal and fine bead appearance. It is suitable for surfacing with strip and wire electrodes and can also be used for joining. Exaton 31S gives the following typical chemical and mechanical properties of all-weld metal for the wire electrodes below. Exaton 25.22.2.LMn is a manganese alloyed chromium-nickel-molybdenum filler material used for welding Sandvik 2RE69 (UNS S31050, 1.4466), Sandvik 3R60 U.G. (UNS S31603, 1.4435). The weld deposit has excellent low temperature toughness that makes it suitable for joining stainless steels for cryogenic service. Very good resistance in ammonium carbamate and nitric acid. Huey testing is commonly used for qualification. The overlay will pass max. 1 m/48 hours and max. 70m selective attack. Fully austenitic.

Specifications	
Classifications	EN ISO 14174 : S A AB 2

Welding Current	1200
Density	nom: 0.9 Kg/l
Basicity Index	nom: 1.0

Classifications	
Wire	AWS/EN
Exaton 25.22.2.LMn	14343-A:B 25 22 2 N L
Exaton 25.22.2.LMn	14343-A:S 25 22 2 N L

Approvals	
Combined with Wire	
*Selected production units only. Please contact ESAB for more information. Visit esab.com to download specific flux/wire combination fact sheets for more details.	

Typical Weld Metal Analysis %								
C	Mn	Si	S	P	Ni	Cr	Mo	N
Exaton 25.22.2.LMn								
0.02	3.8	0.6	-	-	22	24.5	2	0.12

Typical Wire Composition %									
C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N
Exaton 25.22.2.LMn									
<=0.020	4.5	<=0.2	<=0.015	<=0.015	22.0	25.0	2.1	0.05	0.13

Typical Wire Composition %	
FN WRC-92	
Exaton 25.22.2.LMn	
0	

Typical Mechanical Properties					
Combined with Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
Exaton 25.22.2.LMn	As Welded	380 MPa (55 ksi)	570 MPa (83 ksi)	40 %	75 J @ 20 °C (56 ft-lb @ 68 °F) 40 J @ -196 °C (30 ft-lb @ -320.8 °F)
Exaton 25.22.2.LMn	As Welded	320 MPa (46 ksi)	560 MPa (81 ksi)	50 %	65 J @ -196 °C (48 ft-lb @ -320.8 °F)