

Exaton 316LSi

316LSi is suitable for joining stainless Cr-Ni-Mo and Cr-Ni steels, stabilized or non-stabilized, e.g. ASTM 316, 316L and 316Ti as well as 304, 304L, 321 and 347, for service temperatures up to 400°C (750°F). It is also used for welding of stainless Cr-steels with max 19% Cr. It is used for MIG/MAG welding.

Classifications Wire Electrode	SFA/AWS A5.9 : ER316LSi EN ISO 14343-A : G 19 12 3 L Si Werkstoffnummer : ~1.4430
Approvals	CE EN 13479 DB 43.118.07 VdTUV 02367

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

Alloy Type	Austenitic (with appr. 8 % ferrite) 19 % Cr - 12 % Ni - 3 % Mo - Low C - High Si
Shielding Gas	M12, M13 (EN ISO 14175)

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
As Welded	20 °C (68 °F)	120 J (89 ft-lb)
As Welded	-60 °C (-76 °F)	95 J (70 ft-lb)
As Welded	-110 °C (-166 °F)	70 J (52 ft-lb)
As Welded	-196 °C (-321 °F)	45 J (33 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N
0.03	1.7	0.6	0.014	0.021	11.4	18.4	2.5	0.16	0.07

Typical Weld Metal Analysis %

Nb	Co	FN WRC-92
0.01	0.08	6

Typical Wire Composition %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N
<0.025	1.7	0.8	<0.015	<0.02	11.7	18.4	2.6	0.13	0.05

Typical Wire Composition %

Nb	Ti	Co	FN WRC-92
0.02	0.01	0.06	9

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
0.9 mm (0.035 in.)	65-220 A	15-28 V	3.5-18.0 m/min (138-709 in./min)	1.1-5.4 kg/h (2.4-11. lb/h)

Recommended Welding Parameters

Wire Diameter	Current	Voltage	Wire Feed Speed
0.0 mm	-	-	-
0.8 mm (0.030 in.)	40-120 A	15-19 V	4.0-8.0 m/min (157-315 in./min)
1.0 mm (0.040 in.)	60-220 A	15-28 V	4.0-12.0 m/min (157-472 in./min)
1.2 mm (0.047 in.)	150-260 A	24-29 V	3.0-10.0 m/min (118-394 in./min)
1.6 mm (1/16 in.)	230-350 A	25-30 V	3.0-5.0 m/min (118-197 in./min)