Exaton 16.5.1

16.5.1 is a filler material for joining EN 1.4418 and similar steels. It is also used for overlay welding. The weld metal has excellent resistance to cavitation and is used typically for shafts, propellers, pumps and valves in for example, hydropower generation.

Classifications Wire Electrode	EN ISO 14343-A : W 16 5 1
Approvals	CE EN13479

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

Alloy Type	Austenitic/Martensitic/Ferritic - 16% Cr - 5% Ni - 1% Mo - Low C
Shielding Gas	I3 (EN ISO 14175)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
PWHT 590 Deg C, 4 h			
PWHT 4hr 590°C (1094°F)	470 MPa (68 ksi)	850 MPa (123 ksi)	22 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
PWHT 590 Deg C, 4 h		
PWHT 4hr 590°C (1094°F)	20 °C (68 °F)	80 J (59 ft-lb)

Typical Wire Composition %

C	Mn	Si	S	P	Ni	Cr	Mo	V	Al
0.01	1.4	0.3	0.009	0.015	5.5	16.2	1.0	0.04	0.006

Typical Wire Composition %

Cu	N	Nb	Ti	Co
0.01	0.02	0.01	0.01	0.03

CORROSION RESISTANCE: The weld deposit is resistant to scaling in air up to 850 °C (1560 Â°F).
 Its pitting and general corrosion resistance is comparable to EN 1.4306, ASTM 304

RECOMMENDED WELDING DATA:
 The parameters for TIG welding depend largely upon the base metal thickness and the welding application.
 Electrode negative and a shielding

should be used to prevent oxidation of the weld metal.

 WELD METAL CHARACTERISTICS: Martensitic/austenitic microstructure with a ferrite content of 12 FN.

13724-en_US-FactSheet_Main-01 2022-05-23