

FILARC PZ6166

A metal cored wire for the fabrication and repair of Pelton and Francis wheels and other water turbine components in 13%Cr 4%Ni alloyed soft martensitic steels used with M12 or M13 shielding gas.

Specifications

Classifications	EN 14700 : T Fe7 EN ISO 17633-A : T 13 4 M M12 2 EN ISO 17633-A : T 13 4 M M13 2
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Welding Current	DC+
Shielding Gas	M12, M13 (EN ISO 14175)

Tensile Properties

Testing Condition	Yield Strength	Tensile Strength	Elongation
M12			
PWHT 2 hour(s) 580-600 °C	681 MPa	835 MPa	18.7 %

Charpy Testing

Testing Condition	Testing Temp	Impact Value
M12		
PWHT	-20 °C	51 J

Typical Weld Metal Analysis %

C	Mn	Si	Ni	Cr	Mo
M12					
0.021	1.13	0.72	4.43	12.8	0.43

Deposition Data

Diameter	Amps	Volts	Wire Feed Speed	Deposition Rate
1.2 mm	150-350 A	18-34 V	5.3-16.4 m/min	2.2-7.0 kg/h
1.6 mm	150-450 A	18-39 V	2.4-11.2 m/min	1.8-10.0 kg/h