

OK Tigrod B3 SC

OK Tigrod B3 SC is a copper coated, low-alloyed, chromium-molybdenum solid wire designed for GTAW of creep resistant 2.25% Cr 1% Mo alloyed steels, SA-387 Grade 22, A335 Grade P22 or similar materials when highest toughness values are required also after step cooling treatment. Very low level of impurity elements providing a X-bar max. 10 for temper embrittlement resistant applications. Usually welding is followed by a PWHT. Suitable for refinery, petrochemical and chemical industries, power generation, pressure vessels, etc.

Specifications

Classifications	EN ISO 21952-A : W Z CrMo2Si EN ISO 21952-B : W 62 2C1M SFA/AWS A5.28 : ER90S-B3
Approvals	CE : EN 13479 UKCA : EN 13479

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

Alloy Type	Low alloyed (2.25% Cr, 1% Mo)
Shielding Gas	I1 (EN ISO 14175)

Tensile Properties

Testing Condition	Yield Strength	Tensile Strength	Elongation
Ar (I1) EN ISO			
PWHT 1 hour(s) 720 °C	565 MPa	670 MPa	26 %
Ar (I1) AWS			
PWHT 4 hour(s) 690 °C	545 MPa	660 MPa	28 %
PWHT 32 hour(s) 690 °C	500 MPa	620 MPa	29 %
PWHT 1 hour(s) 690 °C	560 MPa	680 MPa	27 %
Ar (I1) AWS Test temp 460°C			
PWHT 32 hour(s) 690 °C	410 MPa	460 MPa	21 %

Charpy Testing

Testing Condition	Testing Temp	Impact Value
Ar (I1) EN ISO		
PWHT	20 °C	275 J
Ar (I1) AWS		
PWHT	-40 °C	160 J
PWHT	-30 °C	170 J
PWHT	-30 °C	155 J
PWHT	-40 °C	150 J
PWHT	-30 °C	190 J
PWHT	-40 °C	140 J

Typical Wire Composition %

C	Mn	Si	Ni	Cr	Mo
0.08	0.5	0.5	0.05	2.4	1.0

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	V	Al
0.07	0.52	0.5	0.005	0.005	0.1	2.5	1.0	0.010	0.002

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Typical Weld Metal Analysis %

Cu	Nb	Ti	Sb	As	B	Sn	Mn+Si	Nb+Ti+V	P+Sn
0.1	0.005	0.003	0.002	0.002	0.0003	0.003	1.0	0.018	0.008

Typical Weld Metal Analysis %

PE	J-Factor	X-bar	Others tot
2.8	82	6	<0.5