

OK Autrod 13.25

A copper coated, low-alloyed, nickel-molybdenum-titanium (1,0 % Ni, 0,3% Mo, 0,1% Ti), solid wire for GMAW of low alloyed high tensile strength steels and fine grained steels for use in constructions such as bridges, off-shore and hoists with a minimum yield strength less than 610 Mpa. The alloy has good impact properties down to -60C. When used in mechanical pipe welding in narrow groove, yield strengths in excess of 700 MPa may be obtained, allowing overmatching of X80 pipeline steel.

Specifications

Classifications

EN ISO 16834-A : G 62 6 M21 Mn3Ni1Mo
 EN ISO 16834-A : G Mn3Ni1Mo
 SFA/AWS A5.28 : ER100S-G

Alloy Type

Low alloyed (1 % Ni, 0.3 % Mo, 0.1 % Ti)

Tensile Properties

Testing Condition	Yield Strength	Tensile Strength	Elongation
AWS 80Ar/20CO2			
As Welded	640 MPa	730 MPa	20 %
EN 80Ar/20CO2			
As Welded	680 MPa	740 MPa	20 %

Charpy Testing

Testing Condition	Testing Temp	Impact Value
AWS 80Ar/20CO2		
As Welded	-40 °C	90 J
As Welded	-60 °C	70 J
As Welded	20 °C	140 J
EN 80Ar/20CO2		
As Welded	-40 °C	110 J
As Welded	20 °C	150 J
As Welded	-60 °C	70 J

Typical Wire Composition %

C	Mn	Si	Ni	Mo	Ti
0.08	1.70	0.60	0.95	0.38	0.08

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Mo	Ti
0.07	1.5	0.5	0.01	0.01	0.95	0.3	0.05

Deposition Data

Diameter	Amps	Volts	Wire Feed Speed	Deposition Rate
1.0 mm	80-280 A	18-28 V	2.7-14.7 m/min	1.0-5.4 kg/h
1.2 mm	120-350 A	20-33 V	2.7-12.4 m/min	1.5-6.6 kg/h