

OK Autrod 12.58

A copper coated, G2Si/ER70S-3 solid wire for GMAW of all general structural and engineering unalloyed and low-alloyed carbon-manganese steels. The electrode may be welded with either a gas mixture or with pure CO₂ as the shielding gas. OK Autrod 12.58 can even be delivered in the unique Esab Octagonal Marathon Pac, which is an excellent choice in mechanised welding applications

Specifications

Classifications

EN ISO 14341-A : G 35 2 C1 2Si
 EN ISO 14341-A : G 38 3 M21 2Si
 EN ISO 14341-A : G 2Si
 SFA/AWS A5.18 : ER70S-3
 CSA W48 : B-G 49A 2 C1 S3

Approvals

ABS : 3YSA (C1, M21)
 BV : SA3YM (C1, M21)
 CE : EN 13479
 DB : 42.039.17
 DNV-GL : III YMS (C1, M21)
 LR : 3YS H15, 3YM H15 (C1, M21)
 UKCA : EN 13479
 VdTÜV : 07653

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

Alloy Type

Carbon-manganese steel (Mn/Si-alloyed)

Shielding Gas

M20, M21, C1 (EN ISO 14175)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
EN C1			
As Welded	410 MPa	500 MPa	30 %
EN M21			
As Welded	430 MPa	515 MPa	26 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
EN C1		
As Welded	-20 °C	90 J
As Welded	20 °C	125 J
EN M21		
As Welded	-20 °C	130 J
As Welded	-30 °C	90 J
As Welded	20 °C	140 J

Typical Wire Composition %

C	Mn	Si
0.074	1.05	0.55

Typical Weld Metal Analysis %

C	Mn	Si	S	P
0.08	0,67	0.41	0.011	0.015

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
0.6 mm	30-100 A	15-20 V	5.5-13.0 m/min	0.7-1.7 kg/h

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Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
0.8 mm	60-200 A	18-24 V	3.2-10.0 m/min	0.8-3.0 kg/h
0.9 mm	70-250 A	18-26 V	3.0-12.0 m/min	0.9-3.6 kg/h
1.0 mm	80-300 A	18-32 V	2.7-15.0 m/min	1.0-5.6 kg/h
1.2 mm	120-380 A	18-34 V	2.5-15.0 m/min	1.3-8.0 kg/h
1.6 mm	225-550 A	28-38 V	2.3-12.0 m/min	2.1-11.4 kg/h