

OK Autrod 12.51 HP

A copper coated, G3Si1/ER70S-6 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 12.51 HP delivered in the unique Esab Octagonal Marathon Pac is an excellent choice in mechanised welding applications

Specifications

Classifications

EN ISO 14341-A : G 38 3 C1 3Si1
 EN ISO 14341-A : G 46 4 M20 3Si1
 EN ISO 14341-A : G 46 4 M21 3Si1
 EN ISO 14341-A : G 3Si1
 SFA/AWS A5.18 : ER70S-6

Approvals

CE : EN 13479
 UKCA : EN 13479
 VdTÜV : 20302

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	480 MPa	580 MPa	28 %
EN M21			
As Welded	510 MPa	600 MPa	27 %
EN M20			
As Welded	520 MPa	610 MPa	25 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
EN C1		
As Welded	-40 °C	100 J
EN M21		
As Welded	-40 °C	125 J
EN M20		
As Welded	-40 °C	125 J

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
1 mm	80-300 A	18-32 V	2.7-15.0 m/min	1.0-5.5 kg/h
1.2 mm	120-380 A	18-35 V	2.5-15.0 m/min	1.3-8.0 kg/h