

Description

ES SG2 is a bare Mn-Si-alloyed G3Si1/ER70S-6 solid wire for the GMAW of non-alloyed steels, as used in general construction, automotive components, pressure vessel fabrication and shipbuilding. ES SG2 taking MAG welding operations to new levels of performance and all-round efficiency, especially in robotic and mechanised welding. Characteristic features include excellent start properties; trouble-free feeding at high wire speeds and lengthy feed distances; a very stable arc at high welding currents; extremely low levels of spatter; low fume emission; reduced contact tip wear and improved protection against corrosion of the wire.

Shielding gas
Ar/20%CO₂ or CO₂.

Current

DC+

Classifications

SFA/AWS A5.18	ER70S-6
EN 440	G3Si1

Typical all weld metal composition, %

C	Si	Mn
0.1	0.9	1.5

Typical mech. Properties all weld metal

Yield stress, MPa	470
Tensile strength, MPa	560
Elongation, %	28

Charpy V

Test temps, °C	Impact values, J
+20	130
-20	90
-30	70

Approvals

ABS 3SA 3YSA

Welding parameters

Diameter, mm	Wire feed, m/min	Welding current, A	Arc voltage, V
0.8	3.2-13	60-200	18-24
1.0	2.7-15	80-300	18-32
1.2	2.5-15	120-380	18-34
1.6	2.3-12	225-550	28-38