

TECHNICAL DATA SHEET

BLUERANGE SG2 solid welding wire for gas shielded welding

APPLICATION

BLUERANGE SG2 can be used in the welding of carbon steel and low alloy steel in the corresponding strength grade, which can be used in engineering machinery, ship, vehicle manufacturing, petrochemical and other industries.

CHARACTERISTICS

BLUERANGE SG2 wire is 500MPa level carbon steel wire for use with CO₂ or Ar+CO₂ gas shielded arc welding. It offers predominantly splatter-free metal transfer when used with gas mixtures and carbon dioxide. It offers a good weld profile in all positions.

PREPERATION

- 1) Solid MIG wire does not combat rust, dirt, oil or other contaminants very well. Use a metal brush or grinder and clean down to bare metal before striking an arc. Make sure your work clamp connects to clean metal, too. Any electrical impedance will affect wire feeding performance.
- 2) To ensure strong welds on thicker metal, bevel the joint to ensure the weld fully penetrates to the base metal. This is especially important for butt joints.
- 3) Welding parameters are only provide for reference, The user should develop an appropriate production welding specification according to the circumstances.

Chemical composition of the welding wire (mass fraction):						%
Items	C	Mn	Si	S	P	Ni
Standard Value	0.06 – 0.14	1.40 – 1.60	0.80 – 1.00	≤0.025	≤0.025	≤0.15
Items	Cr	Mo	V	Cu	Al	Ti+Zr
Standard Value	≤0.15	≤0.015	≤0.03	≤0.35	≤0.02	≤0.15

Mechanical properties of deposited metal: (CO ₂ or 80%Ar+20%CO ₂):			X-ray Detection: II		
Property	Tensile Strength R _m (MPa)	Yield Strength Rel / R _{p0.2} (MPa)	Elongation A / %	Charpy V Notch impact Energy KV ₂ (J) - 30°C	
Standard Value	520 - 640	≥420	≥22	≥47	
Case of value	580	450	30	78	

Packaging: Vacuumed packed bag with cardboard outer box.	
Our code	Description
MIG0.8PBR	φ0.8mm 15Kg Plastic Spool
MIG1.0PBR	Φ1.0mm 15Kg Plastic Spool
MIG1.2PBR	Φ1.2mm 15Kg Plastic Spool
MIG0.8MBR	φ0.8mm 15Kg Metal Spool
MIG1.0MBR	Φ1.0mm 15Kg Metal Spool
MIG1.2MBR	Φ1.2mm 15Kg Metal Spool

Welding Reference current: (DC+):			
Wire Diameter (mm)	0.8	1.0	1.2
Welding Current (A)	50 -180	70- 230	80-350

Approvals:
ABS, BV, DNV, LR, CE

International Standards:	
EN ISO 14341-A:	G42 3C1/M21 3Si1
AWS A5.18:	ER 70S-6
GB/T8110	ER 50-6

**A certified product
EN 13479:2004 -use in metallic
structures or in composite metal
and concrete structures**

Version 1.0 012019