

Technical data sheet

011121MBA

GMAW - Solid wire

WA MCS NiMo620**CLASSIFICATION**

ASME IIC SFA 5.28 / AWS A 5.28: ER100S-G

DESCRIPTION

- Solid GMAW wire for joining high strength steels
- Optimum deoxidation
- Excellent weld fluidity improves wetting and tie in
- Good impact values at -40°C

APPLICATIONS

Fine-grained, cold tough (down to -40°C) and high yield strength steels (up to 620 MPa)

Examples

Fine grained steels	EN 10025	S460 to S620Q, QL and MC
	EN 10028	P460 to P500Q, QH and QL1
Pipe steels	EN 10208	P420 to P460M and ML1
		L415 to L555MB and QB

ASTM A 572 Gr.65, A 633 Gr.E, API 5 L X70, X70Q, X80, X80Q

RQT60, HY80, NAXTRA 70 etc.

ISO/TR 15608: Groups 1.1, 1.2, 1.3, 2.1, 2.2 and 3.1

TYPICAL WIRE ANALYSIS

C	Mn	Si	Ni	Mo	Cr	Al	Ti	S	P
0.1	1.7	0.6	0.9	0.4	0.1	0.02	0.1	0.008	0.015

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	As [%]	CVN [J]
690	620	16	-40°C: 47

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Shielding gas	Rm [MPa]	Rp0.2% [MPa]	As [%]	CVN [J]
Ar + CO ₂ (M21)	750	680	22	-40°C: 90

SHIELDING GASM21 (Ar + 15 - 25% CO₂), M20 (Ar + 5 - ≤ 15% CO₂) gas mixtures or C1 (CO₂) according to EN ISO 14175

Gas flow rate: 15 – 20 l/min.

OPERATING CONDITIONS

Diameter [mm]	Current type	Current [A]	Voltage [V]	Stick-out [mm]
0.8	DC+	80 - 200	13 - 20	10 - 20
1.0	DC+	120 - 250	14 - 22	10 - 20
1.2	DC+	160 - 300	15 - 26	10 - 20
1.6	DC+	180 - 380	20 - 29	20 - 20

WELDING POSITIONS

EN ISO 6947: PA, PB

ASME IX: 1G, 1F, 2F

WA MCS NiMo620 is primarily used in the flat and horizontal-vertical positions. However, welds in other positions are also possible using the short-circuiting or pulsed arc modes of transfer.

PACKAGING

Diameter	0.8 mm – 1.6 mm
	EN ISO 544 – ASME IIC SFA-5.2 M
Spool type	BS300
Weight	15 kg

Other packaging and other diameters: please consult us

Welding products and techniques evolve constantly. All descriptions, illustrations and properties given in this data sheet are subject to change without notice and can only be considered as suitable for general guidance. This document is intended to help the user make the correct choice of product. It is his responsibility to assess its suitability for his intended application.