

Technical data sheet

011121MBA

Cored welding wire**CHROMECORE 12 4V-G****CLASSIFICATION**

EN ISO 17633-A:	T 13 4 P M21 1 – T 13 4 P C1 1
ASME IIC SFA 5.22 / AWS A 5.22:	E410NiMoT1-4 – E410NiMoT1-1
EN 14700:	T Fe7
Equivalent Material number:	1.4351
ASME IX Qualification	QW432 F-N° 6

DESCRIPTION

- Flux cored stainless steel wire for gas shielded arc welding
- 12% chromium - 4% nickel - 0.5% molybdenum - low carbon deposit
- Attractive bead appearance, very good penetration and high productivity
- Excellent X-ray soundness
- Specifically designed for out-of-position welding
- Maximum productivity for completion of vertical welds
- Welded with classical economical Ar-CO₂ mixtures or CO₂

APPLICATIONS

CHROMECORE 12 4V-G is used in steam power plants and for the fabrication and rebuilding of Francis and Pelton turbines. The deposit is martensitic. It combines good toughness with excellent resistance to cavitation and to stress corrosion cracking.

A post-weld heat treatment at 580°C – 620°C is advised to obtain a tempered martensite that combines ductility, corrosion resistance and cavitation resistance.

Examples of materials to be welded:

EN Symbol	Material number	UNS
X4 CrNi 13 4 - X3 CrNi 13-4	1.4313	J91540 Turbines
GX5 CrNi 13 4	1.4313	J91540 Turbines
GX5 CrNiMo 13-4	1.4407	J91550
X6 Cr 13	1.4000	S40300
X6 CrAl 13	1.4002	S40500
X3 CrNiMo 13 4	1.4413	
GX4 CrNiMo 13 4	1.4414	

TYPICAL ALL-WELD METAL ANALYSIS [%]

C	Mn	Si	Cr	Ni	Mo	S	P
0.03	0.4	0.5	12.0	4.5	0.5	0.005	0.008

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

	Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
PWHT 8 hours at 580°C	760	500	15	0°C: 27

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

	Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
PWHT 8 hours at 580°C	880	840	17	0°C: 40

OPERATING CONDITIONS

Diameter [mm]	Current type	Intensity [A]	Voltage [V]	Stick-out [mm]	Gas flow [l/min]
1.2	DC+	120 - 270	22 - 35	12 - 25	10 - 20
1.6	DC+	160 - 350	22 - 35	12 - 25	10 - 20

SHIELDING GAS

EN ISO 14175: M21 (Ar + 15 - 25% CO₂) / M20 (Ar + 5 - ≤ 15% CO₂), or C1 (CO₂)

WELDING POSITIONS

All positions

PACKAGING

Diameter	1.2 mm	1.6 mm
	EN ISO 544 – ASME II C 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.