


Technical data sheet <small>011121MBA</small>	Cored welding wire CHROMECORE 410NiMo-S	
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CLASSIFICATION

EN ISO 17633-A: T 13 4 M NO 3
EN 14700: T Fe7
ASME IIC SFA-5.22 / AWS A5.22: EC410NiMo (nearest)

DESCRIPTION

- Tubular wire for submerged-arc cladding, joining and rebuilding
- 13% chromium martensitic stainless steel deposit alloyed with Ni and Mo that combines toughness with cavitation and heat resistance
- Designed to resist metal-metal wear, corrosion, thermal fatigue and fire-cracking.

APPLICATIONS

CHROMECORE 410NiMo-S is used as a cladding alloy for rebuilding steel mill rolls subject to repetitive thermal stresses, corrosion and metal-to-metal wear. It can also be used for hydropower applications and generally to weld castings and wrought steels of similar composition.

Examples of materials to be welded (non exhaustive list):

- EN Symbol: X4 CrNi 13 4, X3 CrNiMo 13 4, X3 CrNi 13-4, GX4 CrNiMo 13-4, GX5 CrNi 13 4, GX5 CrNiMo 13-4
- Material number: 1.4313, 1.4407, 1.4413, 1.4414 / UNS: S41500, J91540, J91550
- Wrought: F6NM, Cast CA6NM, ASTM A352, A487, A743, A757

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

Examples of applications: Continuous casting rolls, pumps, hydraulic turbines, compressors etc

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	Mo
0.05	1.2	0.8	12.5	4.5	0.5

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

PWHT	Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]	
1 hour at 610°C	800	630	15	+20°C : 32	-20°C : 27

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

PWHT	Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]	
1 hour at 610°C	880	710	19	+20°C : 50	-20°C : 40

Typical hardness: As welded: 35 - 42 HRc / PWHT 4 hours at 610°C: 30 - 35 HRc

FLUX DESCRIPTION

	WA FLUX 325	WA FLUX 385	WA FLUX 415	WA ULTRAFLUX
EN ISO 14174 class	S A AB 1 65	S A AF 2 64	S A FB 1 55	S A FB 1 55

OPERATING CONDITIONS

Diameter (mm)	Current (A)		Voltage (V)		Stick-out (mm)	
	Range	Optimum	Range	Optimum	Range	Optimum
2.4	200 - 450	350	26 - 30	30	25 - 60	30
2.8	250 - 550	400	28 - 32	30	25 - 60	30
3.2	300 - 650	500	28 - 32	30	25 - 60	30

Recovery: 95%

WELDING POSITIONS

Flat

PACKAGING

Diameter	≥ 2.4 mm	
Standard packaging	B 450 coil	Drum
Weight	25 kg	Up to 330 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.