Technical data sheet 011121MBA	Cored welding wire # CHROMECORE 4142NX-S	Welding Alloys

CLASSIFICATION

EN 14700: T ZFe7

DESCRIPTION

- Tubular wire for submerged arc cladding of steel mill rolls
- 2-layer technique to achieve required 414NX-S composition on new rolls
- Deposits a controlled carbon, nitrogen-alloyed 414 Cr martensitic stainless steel
- wire deposit is strengthened with niobium, vanadium and rare earth materials for temper, oxidation, corrosion and creep resistance.
- The deposit resists corrosion, wear, galling and thermal fatigue

APPLICATIONS

Extensively used as a cladding alloy for rebuilding steel mill rolls subject to repetitive thermal stresses, corrosion and metal-to-metal wear.

Examples

Continuous casting rolls, hot rolling mills, steam turbine components, valve seats, valve gates, valve wedges, safety valves

TYPICAL WELD METAL ANALYSIS (2-layer cladding on W-Nr. 1.8070 (21CrMoV5-11)

C	Mn	Si	Cr	Ni	Mo	Nb	V	N	REM
0.08	1.2	0.3	14.0	3.5	1.5	0.2	0.2	0.08	++

Typical microstructure: martensite + 5% delta ferrite

*Actual weld metal composition of the deposit could change depending on the base metal carbon specification and the level of dilution

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Typical hardness: 3-layer deposit, as welded: 42 – 48 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%

Current type/polarity: DC+ or DC-

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