

Technical data sheet

011121MBA

Cored welding wire

CHROME CORE 414NX-G**CLASSIFICATION**

EN 14700: T ZFe7

DESCRIPTION

- Metal cored tubular wire for gas shielded metal arc cladding of steel mill 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 ALL-WELD METAL ANALYSIS

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

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

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

CONDITIONS OF USE

Current type	Shielding gas	Gas flow
DC+ or pulsed	EN ISO 14175: M12, I1, M13, M21	10 - 20 l/min

OPERATING CONDITIONS

Diameter [mm]	Current [A]		Voltage [V]		Stick-out [mm]	
	Range	Optimum	Range	Optimum	Range	Optimum
1.2	100 - 250	220	17 - 32	28	10 - 20	15
1.6	120 - 350	250	17 - 33	28	10 - 20	15
2.0	160 - 400	300	20 - 33	29	15 - 25	20
2.4	200 - 450	350	22 - 33	30	15 - 25	20

Recovery: 90%

WELDING POSITIONS

EN ISO 6947: PA, PB, PC, (PF, PG, PD).

ASME IX: 1G, 1F, 2G, 2F, (3G, 3F, 4F, 4G)

PACKAGING

Diameter	≤ 2.4 mm		≥ 2.4 mm	
	Standard packaging	EN ISO 544: BS 300 spool	B 450 coil	Drum
Weight	15 kg	25 kg	Up to 330 kg	

Other packaging and other diameters: please consult us