Technical data sheet 011121MBA	Cored welding wire # STELLOY NI520-G	Welding Alloys

CLASSIFICATION

EN 14700: T Ni4

DESCRIPTION

- Tubular metal-cored wire for gas shielded metal arc hardfacing
- Nickel-based superalloy designed to withstand extreme conditions
- The weld deposit resists high-temperature wear, heat up to 950°C, oxidation and thermal shock
- Hardenable by heat treatment and by cold work
- Machinable using carbide tools

APPLICATIONS

Suited to surfacing applications involving heavy mechanical stress with impacts and abrasion at high temperatures, particularly hot forging dies and the exposed areas of tooling for hot upsetting, shearing and extrusion.

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Mo	Co	W	Ti	Al	Fe	Ni
0.06	0.2	0.2	13	6	11.5	0.8	3	2	2	Bal.

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Hardness (3-layer deposit)

As welded:	250 HB
Heat treated at 550°C / 4 h + air cooling:	38 – 42 HRc

CONDITIONS OF USE

Current type	Shielding gas	Gas flow rate
DC+ or pulsed	EN ISO 14175: I1 (Argon), M12 (Ar + 0.5 – 5% CO2), M12 (Ar + He + CO2)	10 - 20 l/min.

OPERATING CONDITIONS

Diameter [mm]	Current [A]		Voltage [V]		Stick out [mm]	
	Range	Optimum	Range	Optimum	Range	Optimum
1.6	200 - 300	250	24 - 28	26	15 - 25	20
2.4	280 - 350	300	26 - 30	28	15 - 25	20

Recovery: 95 %

WELDING POSITIONS

Flat, half up, half down, all positions

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