

DURMAT[®] NI-2

**Flux-Cored Wire DIN EN 14700: T Ni20
(DIN 8555: MF21-60-CGZ)**

General characteristics:

DURMAT NI-2 is a cored metal wire filled with a combination of very hard special carbides together with fused tungsten carbides and Ni-Cr-B-Si-for semi-automatic welding application. DURMAT NI-2 was developed to protect surfaces against extreme abrasive wear in combination with corrosion attacks. The alloy has a low melting range of between 900 – 1050°C (1,652 – 1,922°F) and feature a self fluxing characteristic producing a smooth and clean surface. The matrix is highly resistant to acids, bases, lye's and other corrosive media.

Application:

Repairing and hard facing ferritic and austenitic steel tools and machine parts (steel castings). Specially developed for semi and fully automatic welding on tool joints, casings and stabilizers in the petroleum industry.

Physical characteristics:

Hardness:	FTC:	approx. 2360 HV _{0.1}
	Other carbides:	approx. 2900 HV _{0.1}
	Matrix:	approx. 450 – 480 HV _{0.1}

Welding recommendation:

Ø mm	Ø inch	Coil size DIN EN 759	Amps	Voltage
1.6	1/16	B 300 cages ca. 15 kg	160 - 180 A	18 - 20 V
2.4	3/32	B 435 cages ca. 25 kg	200 - 230 A	21 - 23 V
2.8	7/64	B 435 cages ca. 25 kg	220 - 260 A	21 - 23 V
3.2	1/8	B 435 cages ca. 25 kg	240 - 280 A	23 - 25 V

The area to be hard faced should be free of rust, scale, oil and other dirt. Be sure that the base material is not overheated and choose amps and volts as low as possible to avoid melting the tungsten carbide. Note: The base metal's alloy should have enough tensile strength so that the hard facing material cannot be pressed into it.

Patents:

Germany:	No. 40 08 091.9-41
United Kingdom:	No. 2.232.108
USA:	No. 5.004.886