



# DURMAT<sup>®</sup> NIFD<sup>®</sup>

Flux-Cored Wire for Hardfacing

DIN EN 14700  
DIN 8555

T Ni20  
MF21-55-CG

## General characteristics:

DURMAT<sup>®</sup> NIFD<sup>®</sup> is a Flux Cored Wire filled with Fused Tungsten Carbide (FTC) and has a self-fluxing Nickel-matrix for manual, semi-automatic and fully automated welding applications. DURMAT<sup>®</sup> NIFD<sup>®</sup> was developed to protect surfaces against extreme abrasive wear in combination with corrosion attacks. The deposit alloy consists of approximately 60% FTC and 35 - 40% matrix. The alloy has a low melting range of between 900 – 1050°C (1652 – 1922°F) and features a self fluxing characteristic producing a smooth and clean surface. The matrix is resistant to acids, bases, lye and other corrosive media.

## Application:

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

## Typical physical characteristics:

Hardness Carbides: DURMAT<sup>®</sup> FTC ~2360 HV<sub>0.1</sub>  
Macrohardness (all-weld-metal): 52-54 HRC

## Welding recommendation:

Shielding gas (DIN EN ISO 14175): Z3 ArHeHC 30/2/0.05, alternatively M13 (Ar+2% O<sub>2</sub>)

Ø [mm]	Ø [inch]	Coil	Voltage [V]	Amperage [A]
1.2	.045	BS 300 (15kg)	16-20	100-160
1.4	.055	BS 300 (15kg)	16-20	100-170
1.6	1/16	BS 300 (15kg)	18-20	110-170
2.0	5/64	BS 300 (15kg)	19-21	120-200
2.4	3/32	B 435 (25kg)	20-22	140-220
2.8	7/64	B 435 (25kg)	21-23	160-240
3.2	1/8	B 435 (25kg)	22-24	180-240

## General information:

The area to be hard faced should be free of rust, scale, oil and other contamination. Be sure that the base material is not overheated and choose amps and volts as low as possible to avoid decomposition of the tungsten carbide.

## Patents:

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

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