DURMAT® NIFD

Flux-Cored Wire DIN EN 14700: T Ni20
(DIN 8555: MF21-55-CGZ)

General characteristics:

DURMAT NIFD is a flux cored wire filled with fused tungsten carbide and NiCrBSi- matrix for semi-automatic welding application. DURMAT NIFD 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% Ni-Cr-B-Si-matrix. 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 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.

Physical characteristics:

Hardness: FTC: approx. 2360 $HV_{0.1}$

Welding recommendation:

Ø mm	Ø inch	Coil size DIN EN 759	Amps	Voltage
1.2		B 300 cages ca. 15 kg	120 - 160 A	16 - 20 V
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 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.

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