

DURMAT[®] NIA

**Welding Rod DIN EN 14700: T Ni20
(DIN 8555: G21-GF-55-CG)**

General characteristics:

DURMAT NIA is a cold rolled, formed, and closed seam nickel tube filled with fused tungsten carbide (FTC) and Cr, B and Si for oxyacetylene application. The deposited hard facing consists of approximately 65% FTC and 35% Ni-Cr-B-Si-matrix. DURMAT-NIA feature self fluxing characteristic producing a smooth, clean surface. DURMAT-NIA has a low melting point of approx. 950 – 1050°C (1,742-1,922°F). The overlay is extremely wear resistance and anti corrosive to acids, bases, lye and other corrosive media.

Application:

Hard facing on ferritic and austenitic steels (steel casings), overlaying mixer blades and conveyor and screws in chemical, dye and food industry. Recommended for hard facing rock bits and stabilizers in the petroleum industry.

Physical characteristics:

Hardness: FTC: approx. 2360 HV_{0.1}
NiCrBSi-Matrix: approx. 450 - 520 HV_{0.1}

Sales units:

| Type | Ø mm | Ø inch | grain size mm | US mesh size | Color code |
|------|------|--------|---------------|--------------|------------|
| 4005 | 4.0 | 5/32 | 0.25 – 0.70 | 24 – 60 | white |
| 4010 | 4.0 | 5/32 | 0.70 – 1.20 | 14 – 24 | yellow |
| 4020 | 4.0 | 5/32 | 1.00 – 1.60 | 10 – 16 | red |
| 5005 | 5.0 | 3/16 | 0.25 – 0.70 | 24 – 60 | white |
| 5010 | 5.0 | 3/16 | 0.70 – 1.20 | 14 – 24 | yellow |
| 5020 | 5.0 | 3/16 | 1.00 – 2.00 | 9 – 16 | green |
| 6005 | 6.0 | 1/4 | 0.25 – 0.70 | 24 – 60 | white |
| 6010 | 6.0 | 1/4 | 0.70 – 1.20 | 14 – 24 | yellow |
| 6020 | 6.0 | 1/4 | 1.00 – 2.00 | 9 – 16 | green |

Standard tube metal length: 700mm (28")

Welding recommendation:

The surface to be hard faced should be clean and free of rust, scale or grease and other contamination, preferably by grinding or grit blasting. Deposits should be made using a gas flame with a neutral to slight acetylene balance.