

CARBO DURFLEX Ni

Standards

DIN 8555	G 21-UM-50-CG
DIN EN 14700	T Ni20

Characteristics

Flexible welding rod for oxyacetylene welding. The weld-deposit consists of an NiSiB- matrix alloy bearing a high percentage of fused tungsten carbides.

CARBO DURFLEX Ni excels by producing smooth, clean seams and by its excellent flow characteristics which are due to the alloy's low melting-point of 950° - 1050° C.

The Ni-base matrix alloy provides excellent resistance to acids and alkaline-corrosive media.

CARBO DURFLEX Ni is used for applications which are subject to extremely strong abrasive wear combined with corrosion stress.

Operating temperature ---

Typical applications

Hardfacings on tools and equipment parts made of ferritic and austenitic steels, e.g. mixing blades, grinding plates, stabilizers in petroleum exploration, slurry pump valves, molding sand preparation plants, etc.

Recommendations for best welding results

Thoroughly clean the welding zones from corrosion, grease, scale and other contamination.

Depending on the alloy type, heavy work pieces may require preheating to 300 - 500°C and sectional up heating to approx. 650°C on start-up of the welding process.

Adjust the torch to a slight acetylene excess and a soft flame.

To avoid overheating the base metal should be just starting to sweat, and the deposit should not be touched with the flame centre.

Mechanical properties of all-weld metal

(typical values)

Hardness of matrix alloy HRC	Hardness of fused tungsten carbides (HV)
ca.45	> 2300

Weld metal analysis (typical, wt. %)

NiSiB matrix	Fused tungsten carbides
ca.37	ca. 63

Dia./Length	Grain sizes	Pcs./packet	Kg/1000 pcs.	Kg/packet
5.0 x 450	0,25 – 0,70			10,0
6.0 x 450	0,25 – 0,70			10,0
8.0 x 450	0,25 – 0,70			10,0

Other grain sizes and CARBO DURFLEX Ni wire on spools are available upon request.

Rev. 001/12