

# CARBO DURIT Ni A

## Standards

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

## Characteristics

CARBO DURIT Ni A is a tubular rod containing fused tungsten carbides in a nickel base matrix alloy. This alloy is especially designed for gas welding. The weld metal is composed of 60 to 65 % fused tungsten carbides which are embedded in a matrix alloy containing 35 to 40 % NiSiB.

CARBO DURIT Ni A excels by producing a smooth, clean surface. The alloy flows extremely well, due to the low melting point of between 900 and 1000°C.

The nickel based matrix alloy provides excellent resistance to acids and other corrosive media. CARBO DURIT Ni A is used for applications which are subject to extremely strong abrasive wear and corrosive media at the same time.

**Operating temperature** ---

## Typical applications

Hardfacing equipment parts made of ferritic and austenitic steels, e.g. mixer blades, milling plates, conveyor worms, stabilizer blades, slurry pump valves, molding sand preparation plants, corrosion resistant hardfacings on parts which are subject to strong abrasive wear, e.g. in the chemical industry and the food industry.

## Recommendations for best welding results

Thoroughly clean the welding zone. It should be exempt from grease, scale, corrosion, and similar contamination.

Preheat the work piece to 300 - 500° C. During the welding process the local base material temperature has to be increased to 650°C, however, overheating should be avoided.

Adjust the torch to a slight acetylene excess so you can weld with a double flame cone.

## Hardness ( typical values )

Fused tungsten carbide	HV	Matrix	HRc
> 2300		ca. 45	

## Weld metal analysis (typical, wt. %)

NiSiB	WSC
ca. 37	ca. 63

## Flux-cored wire equivalent

CARBO F- Durit Ni

**Welding positions** PA, PB

Dia./Length	Grain size mm	Pcs./ packet	Pcs./ carton	kg / 1000	kg / packet	kg / carton
4.0 x 700					5.0	20.0
5.0 x 700					5.0	20.0
6.0 x 700					5.0	20.0

Other grain sizes are possible on request

Rev. 001/12

Statements on composition and application are just for the applier's information. Statements on mechanical properties always refer to the all-weld-metal according to valid standards. Carbo-Weld may change the characteristics of its products without notice. We recommend the applier to check our products for their special application autonomously.