

# CARBO DURIT Ni E

<b>Standards</b>	DIN 8555	G 21-GF-UM-50-CG
	DIN EN 14700	E Ni20

**Characteristics**

CARBO DURIT Ni E is a tubular rod containing fused tungsten carbides in a nickel base matrix alloy. This alloy is especially designed for electrical 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 E 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.

<b>Hardness</b> ( typical values )	<b>Fused tungsten carbide</b>	<b>HV</b>	<b>Matrix</b>	<b>HRC</b>
	> 2300		ca. 45	

<b>Weld metal analysis</b> (typical, wt. %)	<b>NiSiB</b>	<b>WSC</b>
	ca. 37	ca. 63

**Current** = + / ~ 50 V

**Welding positions** PA, PB

**Flux-cored wire equivalent**

CARBO F-DURIT Ni
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**Welding positions** PA, PB

Dia./Length	Amperage (A)	Pcs./ packet	Pcs./ carton	kg / 1000	kg / packet	kg / carton
4.0 x 350	80 – 100	66	264	75.9	5.0	20.0
5.0 x 350	100 – 120	42	167	119.6	5.0	20.0
6.0 x 350	120 – 160				5.0	20.0

Other grain sizes are possible on request

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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.