

## CARBO DURFLEX Ni

<b>Standards</b>	DIN 8555	G 21-UM-50-CG
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**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.

<b>Mechanical properties of all-weld metal</b>  ( typical values)	<b>Hardness of matrix alloy HRC</b>	<b>Hardness of fused tungsten carbides (HV)</b>
	ca.45	> 2300

<b>Weld metal analysis</b> (typical, wt. %)	<b>NiSiB matrix</b>	<b>Fused tungsten carbides</b>
	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.  
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