

# CARBO DURIT CS 70

<b>Standards</b>	DIN 8555	E21-GP
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**Characteristics** CARBO DURIT CS 70 is a nickel silver based alloy welding rod including crushed sintered tungsten carbide fragments for the oxyacetylene welding process.

**Operating temperature** ---

**Typical applications** It is to expect on-armor-platings of tools and machine parts in the mining, road construction, well digging, special civil engineering, depression drilling technology, where strongest abrasion by minerals may occur.

**Recommendations for best welding results** To get a good result the welding areas should be properly cleaned of rust, grease, tinder and similar pollutions.  
Apply a thin layer of NiCrBSi before hardfacing.  
Use a neutral or slightly carburizing flame with enough heat to be able to move the carbide chips around locating them properly before the nickel alloy freezes.  
The selection of the grain size und the rod diameter depend on the application and the size of the tool to be hard faced.  
Lower particle sizes are recommended when the wear from abrasion is dominant, bigger sizes for fitting a tool for stronger cutting strength.

<b>Mechanical properties of all-weld metal</b> ( typical values )	<b>Hardness of sintered tungsten carbide</b> <b>HV</b>	<b>Hardness of matrix</b> <b>HRc</b>
	> 2300	20

<b>Weld metal analysis</b> (typical, wt. %)	<b>CuNiZn- Matrix</b>	<b>Sintered tungsten carbide</b>
	ca. 30	ca. 70

Rod length	350mm	450mm	450mm	450mm	Colour	kg/packet
Rod weight	250g	500g	750g	1000g		
<b>Grain sizes mm</b>	1,6-3,2	1,6-3,2	1,6-3,2	1,6-3,2	Blue	10,0
	3,2-4,8	3,2-4,8	3,2-4,8	3,2-4,8	Green	10,0
	4,8-6,4	4,8-6,4	4,8-6,4	4,8-6,4	Yellow	10,0
	6,4-8,0	6,4-8,0	6,4-8,0	6,4-8,0	Red	10,0
	8,0-9,5	8,0-9,5	8,0-9,5	8,0-9,5	White	10,0
	9,5-11,0	9,5-11,0	9,5-11,0	9,5-11,0	black	10,0

Other grain sizes are possible on request

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