

# CARBODUR WZ 51 B

**International standards**

DIN 8555	E 3-UM-55-T
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**Characteristics** CARBODUR WZ 51 B is a basic electrode with 140 % recovery. It deposits a wear resistant alloy and can be applied to reclaim hot-forging dies and to overlay the edges and flat areas of low alloyed high density steel tools.

**Typical applications** The electrode is typically applied on: slab shears, hot-forging dies, drawing dies, containers, crushing equipment and depressions created by forging, pressure and impact stress.

**Operating temperature** ---

**Recommendations for welding and heat treatment** The preheat and interphase temperatures should be held at about 300° C depending on the base metal and its heat abduction. Normally, the higher temperature range should be chosen. Heat induction during low tension welding should be continually monitored. Slow cooling is recommended using sand or oven methods.

<b>Mechanical properties of all-weld metal ( typical values)</b>	<b>Hardness as welded</b>	<b>Tensile strength</b>
	<b>HRc</b>	<b>R<sub>m</sub> N / mm<sup>2</sup></b>
	52-55	1740-1900

<b>Weld metal analysis (typical, wt. %)</b>	<b>C</b>	<b>Si</b>	<b>Mn</b>	<b>Cr</b>	<b>Ni</b>	<b>Mo</b>	<b>W</b>	<b>V</b>
	0,3	0,7	0,5	5,3	0,5	1,7	4,9	0,6

**Current** = +

**Welding positions** PA, PB, PC

**Rebaking** 1 h, 350 °C + / - 10 °C ( if required )

<b>Dia./Length</b>	<b>Amperage (A)</b>	<b>Pcs./ packet</b>	<b>Pcs./ carton</b>	<b>kg / 1000</b>	<b>kg / packet</b>	<b>kg / carton</b>
2,5 x 350	60 - 80				5,0	20,0
3,2 x 350	80 - 130				6,0	24,0
4,0 x 350	130 - 170				6,0	24,0
5,0 x 450	160 - 200				6,0	24,0

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