

# CARBODUR WZ 11 B

<b>Standards</b>	DIN 8555	E3-UM-60-ST
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**Typical applications and characteristics**

CARBODUR WZ 11 B is a specially designed electrode with a basic coating for high wear resistant hardfacings on hot- and cold-working tools. The deposit has a crack-free martensitic structure containing high wear-resistant chromium-, molybdenum-, tungsten and other carbides.

Particularly recommended for hardfacing hot- and cold-working trimming dies, pressing- and blanking dies, hot- and cold-shear-blades like hot-billet-shears, blanking-,punching and coining tools, rotary-shear-knives, hot- and cold-forming- and drawing-dies.

The thermal expansion rate and chemical composition of the deposit of CARBODUR WZ 11 B is specially designed to match SKD-11 or similar steels like SKD-12, SKS-41, SKT-4, SKD-61 or mild-/high-carbon steels.

**Operating temperature** ---

**Recommendations for welding and heat treatment**

For achieving optimal crack-free deposits preheating of the base material to 250-300 centigrade is essential.

For limiting the heat-input low amperage and small gauge electrodes should be preferred.

It is also recommended to use a long arc on welding, particularly on edge work. This avoids any burn away of the base material. Short runs are desirable using the step back technique.

<b>Mechanical properties of all-weld metal</b> ( typical values)	<b>Hardness HRC</b>	<b>First layer HRC</b>	<b>at 400° C HRC</b>
	approx. 55	approx. 52	approx.51

<b>Weld metal analysis %</b> ( typical, wt. % )	<b>C</b>	<b>Si</b>	<b>Cr</b>	<b>W</b>	<b>Mo</b>
	0.3	0.5	9	9	1,5

**Current** = +/- ~ ,65 V

**Welding positions** PA, PB, PC, PD, PE, PF

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

Dia./Length	Amperage (A)	Pcs./ packet	Pcs./ carton	kg / 1000	kg / packet	kg / carton
2,5 x 350	50 - 80	229	917	21,8	5,0	20,0
3,2 x 350	80 - 110	136	543	36,8	5,0	20,0
4,0 x 350	100 - 140	90	358	55,8	5,0	20,0

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