

# CARBODUR WZ 49 AC

**International standards**

DIN 8555	E 3-UM-55-T
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**Typical applications and characteristics**

CARBODUR WZ 49 AC is a rutile coated electrode developed for the repair of hot working tools, which have a high carbon content. It leaves a very hard deposit that is impact, crack and abrasion resistant.

CARBODUR WZ 49 AC was specially developed for edgeworking and for overlaying on carbon, manganese, chromium, molybdenum as well as cast steels. An even higher hardness can be obtained by thermal treatment.

Typical applications: slab shears, hot shear blades, drawing blocks, hot-forging dies, impact moulding dies, containers, swages etc.

**Operating temperature** ---

**Recommendations for welding and heat treatment**

Preheating- and interpass temperature should be held between 300 and 450°C, depending on the base metal and its heat abduction. The upper temperature limit should be chosen for thick work pieces.

Low-tension welding and low heat input are essential for a good welding result..

Slowly cool down in sand or oven.

**Mechanical properties of all-weld metal ( typical values)**

1. layer HRc	2. layer HRc	3. layer HRc	Only in the 1th layer by picking up carbon from the base material. As welded, after air cooling
29 – 32	32 – 34	35 - 37	56 - 58

**Weld metal analysis (typical, wt. %)**

C	Cr	Mo	V
0,25	3,5	1,0	0,2

**Current** = + / ~ 65 V

**Welding positions** PA, PB,

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

Dia./Length	Amperage (A)	Pcs./ packet	Pcs./ carton	kg / 1000	kg / packet	kg / carton
2,0 x 300	30 - 65	331	1322	12,1	4,0	16,0
2,5 x 350	50 - 80	226	905	22,1	5,0	20,0
3,2 x 350	70 - 120	134	535	37,4	5,0	20,0
4,0 x 350	100 - 150	69	274	72,9	5,0	20,0
5,0 x 450	140 - 180	44	176	113,9	5,0	20,0