

CARBODUR WZ 6356 B

Standards

Basematerial.	1.6356
DIN 8555	E4-UM-350-CKPSTZ

Typical applications and characteristics

CARBODUR WZ 6356 B is an electrode with an alloyed core wire and a special basic coating. The electrode is designed for repairing die steels specifically huge volume pressing tools with particular reference to H 13 and maraging steels. The deposited weld metal is easy machine able. The deposits are heat treated where improved hardness is required. Further improvement in the hardness of the weld metal is possible by means of nitrating. Typical applications are the facing of dies, stamping tools, metal drawing tools, and pressure die casting tools. The resultant weld metal deposits give improved edge hardness to cold cutting tools and shears.

Recommendations for welding and heat treatment

In many cases the CARBODUR WZ 6356 B can be used without the need for preheating the base metal. On higher carbon steels it is advisable to preheat the base metal and to apply a buffer layer using CARBO 29/9 electrodes. It is recommended that small gauge electrodes are used to limit heat input to base metal to avoid loss of weld metal hardness. It is also required to use a long arc with the electrode as this gives a spray type of weld metal deposits, and particularly on edge work this avoids any burn away of the base material. Short runs are desirable using the step back technique.

Hardening of welded material is achieved by subjection to post heat treatment at 480°C for about 4 hours, followed by a slow cool down. The slowest possible cooling down period is important (50°C/h)

Hardness of all-weld metal (typical values)

as welded	Annealed 4 h at 480°C
ca.350 HB	ca. 55 HRc

Weld metal analysis (typical, wt. %)

C	Si	Ni	Mo	Co	Ti
0,03	0,3	18	4	12	+

Current

= +

Welding positions

PA, PB, PC, PD, PE, PF

Rebaking

1 h, 350 °C + / - 10 °C (if required)

Flux-cored wire equivalent

CARBO F- WZ 6356

Dia./Length	Amperage (A)	Pcs./ packet	Pcs./ carton	kg / 1000	kg / packet	kg / carton
2,5 x 300	50 - 70	213	851	18,8	4,0	16,0
3,2 x 350	70 - 100	157	629	31,8	5,0	20,0
4,0 x 350	90 - 120	104	416	48,1	5,0	20,0

Rev. 000

Statements on composition and application are just for the applier's information. Statements on mechanical properties always refer to the all-weld-metal according to valid standards. Carbo-Weld may change the characteristics of its products without notice. We recommend the applier to check our products for their special application autonomously.