

CARBO SK 1

International standards

AWS A5.13	ECoCr-C
DIN 8555	E 20-UM-55-CTZ

Approvals

Characteristics

CARBO SK 1 is an AC-weldable hardfacing electrode with an alloyed core. The deposit is a cobalt base alloy of austenitic-ledeburitic structure with embedded CrW carbides. It is the hardest of the standard Cobalt base allovs.

The weld metal is highly resistant to corrosion, impact, abrasive wear as

well as thermal shocks and heavy mechanical impact.

The deposits are only machinable by grinding

Welding instructions

Working temperature should be kept between 400° and 600°C, depending on base material and type of construction. Slow cooling, if necessary oven cooling, is recommended for low alloyed and austenitic steels. Subsequent heat treatment (stress relief at 700°C approx.) is not necessary, except on large structures.

Operating temperature From room temperature up to + 1000° C

Typical applications

Wear pads, rotary seal rings, pump sleeves, centre less grinder work rests

Mechanical properties of all-weld metal (typical values)

At Rt.	+ 600°C	+ 800°C	Melting-	Density
HRc	HRc	HRc	range °C	g/cm³
ca. 55	ca.44	ca. 34	1250-1290	8,7

Weld metal analysis (typical, wt. %)

С	Si	Mn	Cr	W	Fe	Co	Others
2,2	1,2	1	30	12,5	3	Base	< 3

Current

 $= + / \sim 42 \text{ V}$

Welding positions

PA, PB, PC

Rebaking

1 h, $350 + / - 10 \,^{\circ}$ C (if required)

Flux-cored wire equivalent

CARBO F- S1

Dia./Length	Amperage (A)	Pcs./packet	Pcs./carton	kg/1000	kg/packet	kg/carton
3,2 x 350	70 - 110	140	560	35,7	5,0	20,0
4,0 x 350	100 - 140	103	412	48,6	5,0	20,0
5,0 x 350	140 - 180	64	254	78,7	5,0	20,0

Rev. 000