CARBO WELD
SCHWEISSMATERIALIEN GMBH

CARBO SK 6

International standards	AWS A5.13	ECoCr-A
	DIN 8555	E 20-UM-40-CTZ

Approvals   ---

Characteristics

AC-weldable hardfacing electrode with a rutile-basic coating and an alloyed core. The deposit is a cobalt base alloy of austenitic-ledeburitic structure with embedded CrW carbides.
The weld metal is highly resistant to corrosion, impact, abrasive wear as well as thermal shocks and heavy mechanical impact.
Good aptitude for polishing and machining.

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 + 600° C

Typical applications

Due to its above-mentioned characteristics CARBO SK 6 is particularly recommended for use on steam valves, hot shear blades, hot pressing dies, pumps for high-temperature liquids, etc.

Mechanical properties of all-weld metal (typical values)

At Rt. HRc	+ 300°C HRc	+ 600°C HRc	Melting-range °C	Density g/cm³
ca. 42	ca. 35	ca. 29	1280-1390	8,3

Weld metal analysis (typical, wt. %)

C	Si	Mn	Cr	W	Fe	Co	Others
1	0,9	1	28	4,5	3	Base	< 3

Current   = + / ~ 42 V

Welding positions   PA, PB, PC

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

Flux-cored wire equivalent

CARBO F- S 6

Dia./Length	Amperage (A)	Pcs./packet	Pcs./carton	kg/1000	kg/packet	kg/carton
2,5 x 350	40 - 75	235	939	21,3	5,0	20,0
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