Technical data sheet 140222JMBA	Cobalt base - Solid wire # WA TCO 6	Welding Alloys

CLASSIFICATION

EN 14700:	R Co2
ASME IIC SFA 5.21 / AWS A 5.21:	ERCoCr-A
UNS Number:	R30006

DESCRIPTION

- Bare rod for GTAW or oxyacetylene welding
- Deposits a cobalt-chromium-tungsten alloy

APPLICATIONS

WA TCO 6 is used for hardfacing parts undergoing the single or combined effects of metal-to-metal wear, abrasion, temperatures ranging from RT to 800°C, impact and corrosive environments.

Examples

Valve seats of diesel engines, cams, chainsaw bars, hot shear blades, cold forming rolls and hot forming rolls, for hot rolling reinforcing bar, pump parts and components in hot zinc baths.

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	W	Mo	Ni	Fe	Co
1.2	0.6	0.9	28.0	4.5	0.2	2.2	2.2	Bal.

Structure: chromium and tungsten carbides in an austenitic type matrix

TYPICAL ALL-WELD METAL PROPERTIES

Hardness:

Weld deposit according to DIN 32525-4. As welded, 3-layers on mild steel: 42 HRc

- Density: 8.4 g/cm3
- Melting range: 1280 – 1410 °C
- Thermal conductivity: 14.8 W/m.K
- Electrical resistivity: 105 µ-ohm.cm

High temperature hardness:

20°C	200°C	400°C	600°C	800°C
420 HB	360 HB	330 HB	240 HB	140 HB

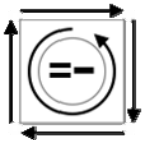
SHIELDING GAS

GTAW	EN ISO 14175: I1 (Argon)

Interpass temperature during surfacing should be kept between 400°C and 600°C, depending on base material and type of construction.

Slow cooling, if necessary furnace cooling, is recommended for low alloyed and austenitic steels. A subsequent heat treatment is not necessary, except on large structures.

WELDING POSITIONS - CURRENT - POLARITY

GTAW


Dimensions (mm)

2.7 x 350	3.2 x 350	4.0 x 350	5 x 350	6.4 x 350
2.7 x 1000	3.2 x 1000	4.0 x 1000	5 x 1000	6.4 x 1000

Other diameters or lengths: please consult us