

Technical data sheet

011121MBA

Cored welding wire
STELLOY 6-G**CLASSIFICATION**

EN 14700: T Co2
 ASME IIC SFA 5.21 / AWS A 5.21: ERCCoCr-A

DESCRIPTION

- Cobalt base tubular wire for gas shielded metal arc hardfacing
- Exceptional resistance to metal-to-metal wear in corrosive media at high temperatures, to erosion and to thermal shocks

APPLICATIONS

STELLOY 6-G 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

Used extensively on 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	Fe	Co
1.05	1.00	1.00	29.0	4.50	4.00	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

High deposition rates and low dilution are facilitated by pulsed current

High heat inputs favour lower hardness

CONDITIONS OF USE

Current type	Shielding gas	Gas flow rate [l/min]
DC+ / pulsed	EN ISO 14175: I1 (argon)	10 - 20

OPERATING CONDITIONS

Diameter [mm]	Current [A]		Voltage [V]		Stick-out [mm]	
	Range	Optimum	Range	Optimum	Range	Optimum
1.2	100 - 250	200	16 - 29	28	15 - 30	25
1.6	140 - 350	250	16 - 30	28	15 - 30	25

Recovery: 98 %

WELDING POSITIONS

Flat, half up, half down, all positions

PACKAGING

Diameter	≤ 2.4 mm	≥ 2.4 mm	
Standard packaging	EN ISO 544: BS 300 spool	B 450 coil	Drum
Weight	15 kg	25 kg	Up to 330 kg

Other packaging and other diameters: please consult us

Welding products and techniques evolve constantly. All descriptions, illustrations and properties given in this data sheet are subject to change without notice and can only be considered as suitable for general guidance. This document is intended to help the user make the correct choice of product. It is his responsibility to assess its suitability for his intended application.