

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 hardsurfacing
- 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 hardsurfacing 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 MECHANICAL PROPERTIES

Hardness:

Three layer deposit on mild steel: 42 HRC

High temperature hardness:

20°C	200°C	400°C	600°C	800°C
420 HB	360HB	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

Current type	Shielding gas	Gas flow rate
DC+ or pulsed	EN 439 / ISO 14175: I1 (argon), M13 (Ar+1à 2 % O ₂)	10 - 20 l/min

OPERATING CONDITIONS

Diameter [mm]	Amperage [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: 95 %

WELDING POSITIONS

Flat, half up, half down

STANDARD DIAMETERS (mm)

1.2, 1.6, 2.0, 2.4 mm

Other diameters: please consult us

PACKAGING

Diameter	2.4 mm		2.4 mm
Standard packaging [EN ISO 544]	Spool : BS 300	Coil : B 450	Drum
Weight	15 kg	25 kg	Up to 330 kg