

STELLOY 6BC-G

CLASSIFICATION

DIN 8555: MSG20-GF-40-CGPRZ
 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 6BC-G is equivalent to Stelloy 6-G with a lower carbon.

Easier to machine and less sensitive to cracking when compared to Stelloy 6-G. Used in automatic and semi-automatic welding where Stelloy 6-G would give cracking problems.

Stelloy 6BC-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

Valve seats, valve gates, valve wedges, valve and cylinder bodies etc.

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	W	Fe	Co
0.90	1.00	1.00	29.0	4.00	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: 38 HRc

- 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