Technical data sheet EN170325GB	Cored welding wire # STELLOY 6BC-G	Welding Alloys

CLASSIFICATION

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

DESCRIPTION

- Cobalt base cored 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 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 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, valve gates, valve wedges, valve and cylinder bodies etc.

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	W	Fe	Co
0.90	1.0	1.0	29.0	2.5	5.0	3.6	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 [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, all positions possible using short circuit or pulsed arc modes of transfer

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