

Technical data sheet

011121MBA

Cored welding wire
STELLOY 6BC-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 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	W	Fe	Co
0.90	1.00	1.00	29.0	5.00	3.60	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, 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.