



Co1 - 1G

HARDFACING

DESCRIPTION

Cobalt-based alloy with chromium and tungsten carbide particles for hardfacing steel, stainless steel, cast iron and nickel alloy parts subjected to **very high temperatures** in the presence of **corrosion, abrasion, erosion, cavitation** and/or **metal-to-metal friction**.

CHARACTERISTICS

- **High hardness as-welded and maintains excellent hardness at high temperatures**
- Excellent all-position weldability
- Conforms to specifications AWS A5.13: ECoCr-C
- Smooth and stable arc, spatter free
- Low friction coefficient
- Good corrosion and heat resistance, up to 800°C (1472°F)

Deposit rating scale

ABRASION										
METAL-METAL										
HEAT										
CORROSION										
	1	2	3	4	5	6	7	8	9	10

Hardness (as-welded): 53 - 57 HRC at 600°C (1112°F): 42 - 45 HRC
 Deposit thickness: 2 passes maximum

TYPICAL APPLICATIONS

Augers, rolls, hot shear blades, matrices, mill guides, steam turbine mechanical components, valve seats, pump shafts and bushings, etc.

PROCEDURE

Remove any trace of oil, grease and/or dirt from the surface. To avoid cracking and facilitate spreading of the filler metal, preheat the parts according to their thickness and composition and maintain the same temperature during hardfacing. Maintain a medium arc with the electrode slightly tilted. Low amperage welding required to limit dilution. Let cool down slowly. Depending on the application, use a cushion with **Soudotec 265** electrode.

WELDING PARAMETERS

Co1 = Electrode; 1G = Bare rod
 Diameter (Co1 - 1G): 3.2 mm (1/8") Others diameters available upon request
 Amperage (Co1): 90 - 110 A
 Polarity (Co1): AC/DC+
 Type of flame (1G): Slightly carburizing

Rév. : 21 08

Specialized welding alloys and technology. For technical assistance or for ordering: