

# STELLOY 21-G

## CLASSIFICATION

EN 14700: T Co1

ASME IIC SFA 5.21 / AWS A 5.21: ERCCoCr-C

## DESCRIPTION

- Cobalt base cored wire for gas shielded metal arc hardfacing
- Co-Cr-Ni-Mo alloy deposit
- Excellent metal-to-metal wear resistance combined good corrosion resistance

## APPLICATIONS

Stelloy 21-G is used for hardsurfacing parts subjected to a combination of impact, abrasion, compression, corrosion and high temperatures up to 900°C

The toughness of the deposit allows excellent resistance to thermal cycles and shocks

Less crack sensitive than other cobalt base alloys, Stelloy 21-G is used for building up large-scale sections

Used for integral seats and guides of large water and high-pressure valve bodies, drop forging dies, pump shafts and sleeves, hot punches etc.

## TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	Mo	Fe	Co
0.25	1.00	1.00	28.5	3.00	5.50	4.00	Bal.

Structure: carbides in an austenitic matrix

## TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Hardness:

As welded: 33 HRC  
Work hardened: 47 HRC

## CONDITIONS OF USE

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

## OPERATING CONDITIONS

Diameter [mm]	Amperage [A]	Voltage [V]	Stick-out [mm]
Range	Optimum	Range	Optimum

Diameter [mm]	Amperage [A]	Voltage [V]	Stick-out [mm]
1.2	100 - 250	200	16 - 29
1.6	140 - 350	250	16 - 30

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
Weight	15 kg	25 kg

Drum  
Up to 330 kg