

# STELLOY 25-G

## CLASSIFICATION

EN 14700: TZCo

DIN 8555<sup>1</sup>: MSG 20-GF-250-CPTZ

<sup>1</sup> Former classification replaced by EN 14700

## DESCRIPTION

- Cobalt base tubular wire for gas shielded metal arc hardsurfacing
- The Co-Cr-W-Ni alloy deposit benefits from stable hardness at high temperatures

## APPLICATIONS

- STELLOY 25-G is used for hardsurfacing parts undergoing metal-to-metal wear at temperatures up to 800°C
- The toughness of the deposit allows excellent resistance to thermal cycles and shocks
- Very resistant to creep, this alloy is used for extrusion dies, nozzles, pump shafts etc

## TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	W	Fe	Co
0.15	1.50	1.00	20.00	10.00	14.00	4.00	Bal.

Structure: austenitic matrix with dispersed carbides or intermetallic component precipitates

## TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

### Hardness:

As welded: 210 HB

Work hardened: 40 HRC

### Hardness at high temperatures

+20°C	400°C	600°C	800°C
210 HB	145 HB	130 HB	120 HB

## CONDITIONS OF USE

Current type	Gas	Gas flow rate
DC(+) or pulsed	EN ISO 14175: I1 (Argon), M13 (Ar + 1 to 2% O <sub>2</sub> )	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 mm

Other diameters: please consult us

#### PACKAGING

Diameter	2.4 mm		2.4 mm
Standard packaging	Spool EN ISO 544: BS 300		Drum
Weight	15 kg	Metal basket rim EN ISO 544: B450	Up to 300 kg