

# STELLOY 6-O

## CLASSIFICATION

EN 14700: TCo2

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

DIN 8555<sup>1</sup>: MSG20-GF-40-CTZ

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

## DESCRIPTION

- Cobalt base tubular wire for self shielded metal arc hardsurfacing
- Exceptional resistance to metal-to-metal wear in corrosive media at high temperatures, to erosion and to thermal shocks

## APPLICATIONS

- STELLOY 6-O is used for hardsurfacing 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

Used extensively on valve seats of diesel engines, cams, chainsaw bars, hot shear blades, cold forming rolls and hot forming rolls, for hot rolling reinforcing bar, pump parts and components in hot zinc baths.

## TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	W	Fe	Co
1.05	1.00	1.00	29.00	4.50	4.00	Bal.

Structure: chromium and tungsten carbides in an austenitic type matrix

## TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

### Hardness:

3-Layer deposit on mild steel: 42 HRC

### High temperature hardness:

20°C	200°C	400°C	600°C	800°C
420 HB	360 HB	330 HB	240 HB	140 HB

High deposition rates and low dilution are facilitated by pulsed current

High heat inputs favour lower hardness

**CONDITIONS OF USE****Current type/Polarity****Protection**

DC (+)

self shielded (open arc)

**OPERATING CONDITIONS**

Diameter [mm]	Amperage [A]		Voltage [V]		Stick-out [mm]		Range		Optimum		
	Range	Optimum	Range	Optimum	Range	Optimum	Range	Optimum	Range	Optimum	
1.6	150 - 350	270	24 - 35	28	25 - 50	25					
2.4	250 - 450	350	26 - 35	28	25 - 50	30					

Recovery: 90 %

**WELDING POSITIONS**

Flat, half up, half down

**STANDARD DIAMETERS (mm)**

1.6, 2.4 mm

Other diameters: please consult us

**PACKAGING**

Diameter	< 2.4 mm		> 2.4 mm	
Standard packaging [EN ISO 544]	Spool : BS 300	Metal basket rim EN ISO 544: B450		Drum
Weight	15 kg	25 kg		Up to 330 kg