

STELLOY 21-O

CLASSIFICATION

EN 14700: TCo1

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

DIN 8555¹: MF20-GF-350/50-CKTZ

¹ Former classification replaced by EN 14700

DESCRIPTION

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

APPLICATIONS

- STELLOY 21-O 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	28.50	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/Polarity

Protection

DC (+) self shielded (open arc)

OPERATING CONDITIONS

Diameter [mm]

Amperage [A]

Voltage [V]

Stick-out [mm]

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