

**Technical data sheet**

011121MBA

**Cored welding wire**  
**STELLOY 21-O****CLASSIFICATION**

EN 14700: T Co1  
 ASME IIC SFA 5.21 / AWS A 5.21: ERCCoCr-E

**DESCRIPTION**

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

**APPLICATIONS**

- STELLOY 21-O is used for hardfacing 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-O 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

**OPERATING CONDITIONS**

Current type	Protection
DC+	Self-shielded

**TYPICAL WELDING PARAMETERS**

Diameter [mm]	Current [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

**PACKAGING**

Diameter	≤ 2.4 mm	≥ 2.4 mm	
Standard packaging	EN ISO 544: BS 300 spool	B 450 coil	Drum
Weight	15 kg	25 kg	Up to 330 kg

Other packaging and other diameters: please consult us

Welding products and techniques evolve constantly. All descriptions, illustrations and properties given in this data sheet are subject to change without notice and can only be considered as suitable for general guidance. This document is intended to help the user make the correct choice of product. It is his responsibility to assess its suitability for his intended application.