MIG CO1

Classification

AWS A5.21 : ERCoCr-C
DIN 8555 : MSG-20-GZ-55-CSTZ
EN 14700 : S Co3

Description & Applications

Cobalt base solid wire for GMAW harfacing of Stellite™ Grade 1*. Very good resistance to metal/metal wear and to corrosion mainly up to 800°C and occasionnaly to +1100°C. Highly resistant to erosion and cavitation.

Main applications: Hardfacing of rollers, rails, bearing and shafts of pumps, extrusion nozzles, hot cutting tools, conveyor screws…

* Trademark Kennametal

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Fe	W	P	S	O/T	Co
Min	2.0			26				11				
Max	3.0	2.0	1.0	33	3.0	1.0	3.0	14	0.03	0.03	0.50	Rem.
Type	2.4	1.2	0.2	31.0	2.2	0.3	2.5	12.5	0.02	0.015	<0.50	Rem.

All Weld Metal Mechanical Properties

	Hardness (HRC)		
Temperature (°C)	+20°C	400°C	600°C
Type	45-58	~47	~41

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters		Shielding Gas
		Current (A)	(V)	
MIG = +	1.2 1.6	140-180 160-200	22-27 24-28	ISO 14175: I1(Ar) / M11 (Ar/CO_2) 18 L/min

Preheat massive parts or special steels to 300-600°C. Keep this temperature during welding and cool down slowly, preferable in an oven, to reduce the risk of cracking while cooling.

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