



## MIG CO12

### Classification

AWS A5.21 : ERCoCr-B  
DIN 8555 : MSG-20-GZ-50-CSTZ

EN 14700 : S Co2

### Description & Applications

Cobalt base solid wire for GMAW hardfacing of Stellite™ Grade 12\*. Very good resistance to metal and mineral abrasion combined with corrosion and high temperature up to 800°C, in the presence or not of moderate shocks. Highly resistant to erosion and cavitation. Highly recommended when an important hardness is searched and for a deposit stressed by temperature, corrosion, abrasion and impact.

**Main applications:** Hardfacing of tools for processing plastics, for wood and paper (carton and paper cutting) characteristics, pressing tools, hot cut tools, hot shear blades, extrusion screws.

\* Trademark Kennametal

### Typical Chemical Composition ( % )

	C	Si	Mn	Cr	Ni	Mo	Fe	W	P	S	O/T	Co
Min	1.2		0.1	26				7.0				
Max	1.7	2.0	1.0	32	3.0	1.0	3.0	9.5	0.03	0.03	0.50	Rem.
Type	1.4	1.4	0.30	30.5	2.4	0.20	2.0	8.4	0.02	0.01	<0.50	Rem.

### All Weld Metal Mechanical Properties

Temperature (°C)	Hardness (HRC)		
	+20°C	400°C	600°C
Type	47-50	~37	~34

### Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters		Shielding Gas
		Current (A)	(V)	
MIG = +	1.2	140-180	22-27	ISO 14175: I1(Ar) / M11 (Ar/CO <sub>2</sub> ) 18 L/min
	1.6	160-200	24-28	

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.

FT En-MB03-200309

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