



## TIG CO12

### Classification

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

EN 14700 : S Co2

### Description & Applications

Cobalt base solid rod for TIG or oxyfuel 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	A/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	Shielding Gas
TIG = -	ISO 14175 : I1 (Ar) 6-12 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.

For oxyfuel hardfacing, use a reducing flame (slight excess of acetylene).

FT En-TB03-170711

**Liability:** This document is intended to assist the user in choosing the product. It is up to the user to verify that the chosen product is suitable for applications for which it is intended. The company FSH Welding Group reserves the right to alter specifications without prior notice of its products. The descriptions, illustrations and specifications are for reference only and cannot be held liable for FSH Welding Group. **Fumes:** Consult information on MSDS, available upon request.

[www.fsh-welding.com](http://www.fsh-welding.com) - [info@fsh-welding.fr](mailto:info@fsh-welding.fr)