



DATA SHEET
DS 116
Rev. 01 dd 10/03/09
INETIG CU

I.N.E. S.p.A.
Via Facca 10
35013 Cittadella (PADOVA)
ITALY
Tel. : +39 049/9481111 Fax: + 39 049/9400249
Internet: www.ine.it E mail: ine@ine.it

CLASSIFICATION

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.28: ER80S-G	(EN ISO 16834-A: W Mn3Ni1Cu)

APPROVALS

ALLOY TYPE

Copper-coated tig rod for welding weather-resistant steels.

APPLICATIONS

Low-alloy copper-coated tig rod with Ni-Cu-Cr additions designed for welding weather-resistant steels. Thanks to the chemical composition and weld metal mechanical properties it is also used for welding high tensile strength steels. Suitable for the construction of containers, tanks, bridges, building panels, chimneys, means of transport, offshore platforms, etc. The weld material shows a good resistance to atmospheric corrosion and salt water.

MATERIALS TO BE WELDED

ASTM		EN		Others
A 242 1, 2		10155 S235 J 0 W	(BS 4360 Gr WR50A)	Corten A
A 588 Gr A		10155 S235 J 2 W	(BS 4360 Gr WR50B)	Corten B1
A 588 Gr B		10155 S355 J 0 W	(BS 4360 Gr WR50C)	Italcor 1-2
A 588 Gr C		10155 S355 J 2 W		Resco
A 588 Gr K		10155 S355 K 2 G 1 W		Patinax
				Resista

WELDING GUIDELINES

Interpass temperature 150°C. Preheat and PWHT are not required.

TECHNICAL INFORMATION

Gas: Argon 100% (EN ISO 14175)
Welding position: all positions



WELDING PARAMETERS

Current	DC - Straight polarity
----------------	-------------------------------

PACKAGING DATA

Diameter (mm)	1.2	1.6	2.0	2.4	3.2	4.0
Length (mm)	1000	1000	1000	1000	1000	1000
Carton	5/25 Kg	5/25 Kg	5/25 Kg	5/25 Kg	5/25 Kg	5/25 Kg

* tolerances according to EN ISO 544 specification.



DATA SHEET
DS 116
Rev. 01 dd 10/03/09
INETIG CU

I.N.E. S.p.A.
Via Facca 10
35013 Cittadella (PADOVA)
ITALY
Tel. : +39 049/9481111 Fax: + 39 049/9400249
Internet: www.ine.it E mail: ine@ine.it

TYPICAL CHEMICAL COMPOSITION OF WIRE

C %	Mn %	Si %	S %	P %	Cu %	Ni %	Cr %	Mo %	
0.08	1.40	0.75	0.010	0.010	0.40	0.70	0.30	-	

TYPICAL MECHANICAL PROPERTIES

GAS		Yield strength	Tensile strength	Elongation on % 5d	Impact energy (Charpy V)				
		Rs	Rm	A 5d	+ 20°C	0°C	-20°C	-40°C	-50°C
		(MPa)	(MPa)	%	(Joule)	(Joule)	(Joule)	(Joule)	(Joule)
Argon	as welded	540	640	24	130	110	100	70	50

PRODUCTS AVAILABLE

Process	Product	Classification AWS	Classification EN
MIG/MAG Solid wire	INEFIL CU	AWS A 5.28: ER80S-G	(EN 16834-A: G Mn3Ni1Cu)
TIG Rods			
SAW Submerged arc	INESUB S2CU	AWS A 5.23: EG	EN 756: S O
FCAW Cored wire	INETUB M71TG-CU	AWS A 5.28: E80C-W2	
SMAW Electrodes	INE 57 B CNC	AWS A 5.5: E8018-W2	EN 2560-A: E 50 4 Z B 42