



DATA SHEET
DS 130
Rev. 2 dd 15/05/2015
INETIG 80 Ni 3

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-Ni3	EN ISO 636-B: W 57P 7 WN71
AWS A 5.28M: ER55S-Ni3	
ASME SFA 5.28: ER80S-Ni3	
ASME SFA 5.28M: ER55S-Ni3	

APPROVALS

ALLOY TYPE

3.5Ni for good low temperature toughness.

APPLICATIONS

Low alloy copper-coated tig rod designed for welding low alloy steels with 3,5% Ni content, fine grained for low temperature applications. It is used in petrochemical industry where it finds applications in construction of cryogenic plant and associated pipework, in the manufacture, storage and distribution of volatile liquids and liquefied gases, when operating at temperatures to -80°C.

MATERIALS TO BE WELDED

ASTM	EN	Others
A 203 Gr D, E, F	(BS 1501 Gr 503)	
A 333 Gr 3	(BS 1503 Gr 503)	
A 350 Gr LF3	(BS 1504 Gr 503 LT60)	
A 352 Gr LC3		

WELDING GUIDELINES

Preheat and interpass temperature 150°C. PWHT at 620°C for an hour.

TECHNICAL INFORMATION

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

**WELDING PARAMETERS**

Current	DC - Straight polarity
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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.



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TYPICAL CHEMICAL COMPOSITION OF WIRE

C %	Mn %	Si %	S %	P %	Cr %	Ni %	Mo %	Cu %	
0.10	1.00	0.60	0.010	0.010	-	3.50	-	0.12	

TYPICAL MECHANICAL PROPERTIES

GAS		Yield strength	Tensile strength	Elongation on	Impact energy (Charpy V)				
		Rs	Rm	A 5d	0°C	-20°C	-50°C	-60°C	-75°C
		(MPa)	(MPa)	%	(Joule)	(Joule)	(Joule)	(Joule)	(Joule)
I1	after PWHT	570	640	24	-	-	90	60	40

PRODUCTS AVAILABLE

Process	Product	Classification AWS	Classification EN
MIG/MAG Solid wire	INEFIL 80 Ni 3	AWS A 5.28: ER80S-Ni3	EN 14341-B: G N71
TIG Rods			
SAW Submerged arc	INESUB S2Ni3	AWS A 5.23: ENi3	EN 14171-A: S2Ni3
FCAW Cored wire			
SMAW Electrodes			