



**DATA SHEET**  
**DS 133**  
**Rev. 2 dd 15/05/2015**  
**INETIG 110**

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](http://www.ine.it) E mail: [ine@ine.it](mailto:ine@ine.it)

**CLASSIFICATION**

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.28: ER110S-1	(EN ISO 16834-A: W Mn3Ni2,5CrMo)
AWS A 5.28M: ER76S-1	
ASME SFA 5.28: ER110S-1	
ASME SFA5.28M: ER76S-1	

**APPROVALS**


**ALLOY TYPE**

Copper-coated TIG rod for high strength steels.

**APPLICATIONS**

Copper-coated low alloy tig rod with Ni-Cr-Mo additions designed for welding high yield strength steels and with tensile strength higher than 800 MPa. Chemical composition of wire conforming to AWS specifications. Excellent impact strength at low temperatures. Suitable for the metal working industry, offshore fabrication, chemical and petrochemical industry. It also has applications in fabrications of HSLA (high-strength low-alloy) steels, which may be used for industrial machinery construction, cranes and other highly stressed structural components.

**MATERIALS TO BE WELDED**

ASTM		EN		Others
A 514	API 5LX X65	10137-2 S460	10208-2 L480	RQT 601
A 517	API 5LX X70	10137-2 S500	10208-2 L550	Navy Q1
HY80	API 5LX X80	10137-2 S550	(BS 4360 Gr 55F)	NAXTRA 70
HY90	API 5A L80	10137-2 S620		WELDOX 700
HY100		10137-2 S690		

**WELDING GUIDELINES**

Preheat and interpass temperature 150°C. PWHT is not required. To obtain the best mechanical properties results, the use with low heat input is advised (follow the steel producer recommendations).

**TECHNICAL INFORMATION**

Gas: Argon 100% (EN ISO 14175)  
Welding positions: 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 133**  
**Rev. 2 dd 15/05/2015**  
**INETIG 110**

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](http://www.ine.it) E mail: [ine@ine.it](mailto:ine@ine.it)

**TYPICAL CHEMICAL COMPOSITION OF WIRE**

C %	Mn %	Si %	S %	P %	Cr %	Ni %	Mo %	Cu %	
0.06	1.60	0.40	0.007	0.007	0.10	2.50	0.40	0.12	

**TYPICAL MECHANICAL PROPERTIES**

GAS		Yield strength	Tensile strength	Elongation on	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)
I1	as welded	750	820	17	190	-	150	100	75

**PRODUCTS AVAILABLE**

Process	Product	Classification AWS	Classification EN
<b>MIG/MAG</b> Solid wire	INEFIL 120 S1	AWS A 5.28: ER120S-1	EN 16834-A: G Mn4Ni2Mo
	INEFIL 120	AWS A 5.28: ER120S-G	EN 16834-A: G Mn4Ni2CrMo
	INEFIL 110	AWS A 5.28: ER110S-1	(EN 16834-A: G Mn3Ni2,5CrMo)
<b>TIG</b> Rods	INETIG 120	AWS A 5.28: ER120S-G	EN 16834-A: W Mn4Ni2CrMo
	INETIG 120 S1	AWS A 5.28: ER120S-1	EN 16834-A: W Mn4Ni2Mo
<b>SAW</b> Submerged arc			
<b>FCAW</b> Cored wire	INETUB M111TG-K3	AWS A 5.28: E110C-K3	EN 18276-A: T 2NiMo
	INETUB M121TG-K4	AWS A 5.28: E120C-K4	EN 18276-A: T Mn2NiCrMo
	INETUB B121T5-K4	AWS A 5.29: E121T5-K4	EN 18276-A: T Mn2NiCrMo
<b>SMAW</b> Electrodes			