



**DATA SHEET**  
**DS 103**  
**Rev. 6 dd 13/05/2015**  
**INETIG G2MO**

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**CLASSIFICATION**

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.28: ER70S-A1	EN ISO 636-A: W 46 2 W2Mo
AWS A 5.28M: ER49S-A1	EN ISO 21952-A: W MoSi
ASME SFA 5.28: ER70S-A1	
ASME SFA 5.28M: ER49S-A1	

**APPROVALS**

DB	TÜV	

**ALLOY TYPE**

Low-alloy copper-coated tig rod with 0.5% Mo content for welding low-alloy steels with high tensile strength.

**APPLICATIONS**

Low-alloy copper-coated tig rod with 0.5% Mo content designed for welding low-alloy steels with high tensile strength and creep-resistant steels. Suitable for pipelines and pressure vessels with operating temperatures of about 500°C. Good impact strength at low temperatures.

**MATERIALS TO BE WELDED**

ASTM		EN		Others
A 335 Gr P1	A 204 Gr A	10028-2 P295 G H	10113-2 S420	
A 487 Gr 2A	A 204 Gr B	10028-2 P355 G H	(DIN 15Mo3)	
A 487 Gr 2B	A 204 Gr C	10028-2 16Mo2	(DIN 16Mo5)	
A 487 Gr 2C	A 217 Gr WC1	10222-2 17Mo3	(DIN 10MnMo 4 5)	
A 209 Gr T1	A 352 Gr LC1	10222-2 14Mo6	(DIN 11MnMo 4 5)	
A 250 Gr T1		10113-2 S275		
A 336 Gr F1		10113-2 S355		

**WELDING GUIDELINES**

Preheat and interpass temperature 150°C. Possible 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 %	Cu %	Ni %	Cr %	Mo %	
0.09	1.20	0.60	0.010	0.010	0.15	-	-	0.50	

**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)
I1	as welded	520	630	23	200	-	80	-	-
I1	after PWHT	500	610	25	220	-	100	-	-

**PRODUCTS AVAILABLE**

Process	Product	Classification AWS	Classification EN
<b>MIG/MAG</b> Solid wire	INEFIL G2MO	AWS A 5.28: ER70S-A1	EN 14341-A: G 2Mo EN 21952-A: G MoSi
	INEFIL D2	AWS A 5.28: ER80S-D2 AWS A 5.28: ER90S-D2	EN 14341-A: G 4Mo
	<b>TIG</b> Rods	INETIG D2	AWS A 5.28: ER80S-D2 AWS A 5.28: ER90S-D2
<b>SAW</b> Submerged arc	INESUB S2MO	AWS A 5.23: EA2	EN 14171-A: S2Mo
	INESUB EA3	AWS A 5.23: EA3	EN 14171-A: S4Mo
<b>FCAW</b> Cored wire	INETUB M81TG-A1	AWS A 5.28: E80C-G	EN 17632-A: T Mo
	INETUB B81T5-A1	AWS A 5.29: E81T5-A1	EN 17634-A: T Mo
<b>SMAW</b> Electrodes	INE A1	AWS A 5.5: E7018-A1	EN 3580-A: E Mo