



**DATA SHEET**  
**DS 104**  
**Rev. 04 dd 10/03/09**  
**INETIG D2**

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**CLASSIFICATION**

**APPROVALS**

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.28: ER80S-D2	EN ISO 636-B: W4M31
AWS A 5.28: ER90S-D2	


**ALLOY TYPE**

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

**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. Also finds applications for the repair of medium strength steel castings. Good impact strength at low temperatures.

**MATERIALS TO BE WELDED**

ASTM		EN		Others
AISI 4130		10028-2 P295 G H	10113-2 S420	
A 487 Gr 2A		10028-2 P355 G H	10113-3 S275	
A 487 Gr 2B		10028-2 16Mo2	10113-3 S355	
A 487 Gr 2C		10222-2 17Mo3	10113-3 S420	
		10222-2 14Mo6		
		10113-2 S275		
		10113-2 S355		

**WELDING GUIDELINES**

Preheat and interpass temperature 150°C. PWHT is not required.

**TECHNICAL INFORMATION**

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



**WELDING PARAMETERS**

<b>Current</b>	<b>DC - Straight polarity</b>
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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 %	
0.08	1.90	0.70	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)
<b>Argon</b>	as welded	570	660	22	200	-	-	-	-

**PRODUCTS AVAILABLE**

Process	Product	Classification AWS	Classification EN
<b>MIG/MAG</b> Solid wire	INEFIL D2	AWS A 5.28: ER80S-D2 AWS A 5.28: ER90S-D2	EN 14341-A: G 4Mo
	INEFIL G2MO	AWS A 5.28: ER70S-A1	EN 14341-A: G 2Mo EN 21952-A: G MoSi
<b>TIG</b> Rods	INETIG G2MO	AWS A 5.28: ER70S-A1	EN 636-A: W 2Mo EN 21952-A: W MoSi
<b>SAW</b> Submerged arc	INESUB S2MO	AWS A 5.23: EA2	EN 756: S 2Mo
	INESUB EA3	AWS A 5.23: EA3	EN 756: S 4Mo
<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 57 B MO	AWS A 5.5: E7018-A1	EN 3580-A: E Mo