



DATA SHEET
DS 057
Rev. 6 dd 15/05/2015
INEFIL D2

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CLASSIFICATION

APPROVALS

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.28: ER80S-D2 / ER90S-D2	EN ISO 14341-A: G 50 5 M21 4Mo
AWS A 5.28M: ER55S-D2 / ER62S-D2	
ASME SFA 5.28: ER80S-D2 / ER90S-D2	
ASME SFA 5.28M: ER55S-D2 / ER62S-D2	

TÜV		

ALLOY TYPE

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

APPLICATIONS

Low-alloy copper-coated solid wire 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. To be used under the shield of Ar+CO₂.

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: Mix Ar- CO₂ (EN 14175)
 Welding position: all positions



WELDING PARAMETERS

Current	DC + Reverse polarity				
Diameter (mm)	0.8	1.0	1.2	1.6	
Volts (V)	16 ÷ 28	17 ÷ 32	18 ÷ 34	19 ÷ 38	
Intensity (A)	60 ÷ 200	80 ÷ 260	100 ÷ 360	130 ÷ 450	



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TYPICAL CHEMICAL COMPOSITION OF WIRE

C %	Mn %	Si %	S %	P %	Cr %	Ni %	Mo%	Cu %	
0.08	1.80	0.70	0.01	0.01	-	-	0.50	0.12	

TYPICAL MECHANICAL PROPERTIES

GAS		Yield strength	Tensile strength	Elongation on % 5d	Impact energy (Charpy V)				
		Rs	Rm	A 5d	+ 20°C	0°C	-40°C	-50°C	-60°C
		(N/mm ²)	(N/mm ²)	%	(Joule)	(Joule)	(Joule)	(Joule)	(Joule)
M21	as welded	560	650	22	150	120	75	60	-

PRODUCTS AVAILABLE

Process	Product	Classification AWS	Classification EN
MIG/MAG Solid wire	INEFIL G2MO	AWS A 5.28: ER70S-A1	EN 14341-A: G 2Mo EN 21952-A: G MoSi
TIG Rods	INETIG D2 INETIG G2MO	AWS A 5.28: ER80S-D2 AWS A 5.28: ER90S-D2 AWS A 5.28: ER70S-A1	EN 636-B: W4M31 EN 636-A: W 2Mo EN 21952-A: W MoSi
SAW Submerged arc	INESUB S2MO INESUB EA3	AWS A 5.23: EA2 AWS A 5.23: EA3	EN 14171-A: S2Mo EN 14171-A: S4Mo
FCAW Cored wire	INETUB M81TG-A1 INETUB B81T5-A1	AWS A 5.28: E80C-G AWS A 5.29: E81T5-A1	EN 17632-A: T Mo EN 17634-A: T Mo
SMAW Electrodes	INE A1	AWS A 5.5: E7018-A1	EN 3580-A: E Mo