



DATA SHEET
DS 077
Rev. 2 dd 14/05/2015
INEFIL 4130

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CLASSIFICATION**APPROVALS**

AWS SPECIFICATIONS	EN SPECIFICATIONS

ALLOY TYPE

Copper-coated solid wire for welding high strength steels.

APPLICATIONS

Low-alloy copper-coated solid wire with Cr-Mo additions designed for welding high strength steels of similar chemical composition. It is used for overlay applications where moderate hardness is required. To be used under the shield of Ar+CO₂.

MATERIALS TO BE WELDED

ASTM		EN		Others
AISI 4130		10083-3 25CrMo4		

WELDING GUIDELINES

Preheat and interpass temperature 200°C. PWHT at 845°C, oil quenching and tempering at 565°C. Follow the steel producer recommendations.

TECHNICAL INFORMATION

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

**WELDING PARAMETERS**

Current	DC + Reverse polarity					
	0.8	1.0	1.2	1.6		
Diameter (mm)						
Volts (V)	15 ÷ 30	17 ÷ 31	18 ÷ 32	19 ÷ 38		
Intensity (A)	70 ÷ 200	90 ÷ 240	110 ÷ 300	130 ÷ 450		



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TYPICAL CHEMICAL COMPOSITION OF WIRE

C %	Mn %	Si %	S %	P %	Cr %	Ni %	Mo %	Cu %	
0.30	0.50	0.20	0.010	0.010	0.95	-	0.20	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
		(MPa)	(MPa)	%	(Joule)	(Joule)	(Joule)	(Joule)	(Joule)
M21	after PWHT	890	1000	11	-	-	-	-	-

PRODUCTS AVAILABLE

Process	Product	Classification AWS	Classification EN
MIG/MAG Solid wire	INEFIL 120	AWS A 5.28: ER120S-G	EN 16834-A: G Mn4Ni2CrMo
TIG Rods	INETIG 4130 INETIG 120	AWS A 5.28: ER120S-G	EN 16834-A: W Mn4Ni2CrMo
SAW Submerged arc	INESUB 4130		
FCAW Cored wire			
SMAW Electrodes			