



DATA SHEET
DS 240
Rev. 01 dd 27/05/2013
INE C2

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CLASSIFICATION

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.5: E8018-C2	EN ISO 2560-A: E 46 6 3Ni B 4 2
AWS A 5.5M: E5518-C2	
ASME SFA 5.5: E8018-C2	
ASME SFA 5.5M: E5518-C2	

APPROVALS

ALLOY TYPE

3.5Ni for good low temperature toughness.

APPLICATIONS

Basic-coated electrode with 3.5% Ni for welding low alloy steels with 3,5% Ni content, fine grained for low temperature applications (-100°C). It is used in petrochemical industry where it finds applications in construction of cryogenic plant and associated pipework, in the manufacture, storage and distribution of volatile liquids and liquefied gases.

MATERIALS TO BE WELDED

ASTM		EN		Others
A 203 Gr D, E, F		(BS 1501 Gr 503)		
A 333 Gr 3		(BS 1503 Gr 503)		
A 350 Gr LF3		(BS 1504 Gr 503 LT60)		
A 352 Gr LC3				

WELDING GUIDELINES

Preheat and interpass temperature 90 ÷ 120°C. PWHT at 620°C for an hour. To be reconditioned at 370÷400°C for an hour (max 2 times) if necessary.

TECHNICAL INFORMATION



Welding positions: all positions but vertical down

WELDING PARAMETERS

Current	AC /DC + Reverse polarity					
Diameter (mm)	2.5	3.2	4.0	5.0		
Length (mm) *	300 ÷ 350	350	350	450		
Intensity (A)	60 ÷ 110	90 ÷ 140	130 ÷ 190	170 ÷ 240		

* Different lengths available on request.



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TYPICAL CHEMICAL COMPOSITION OF WELD METAL

C %	Mn %	Si %	S %	P %	Cu %	Ni %	Cr %	Mo %	
0.05	1.00	0.30	0.015	0.015	-	3.40	-	-	

TYPICAL MECHANICAL PROPERTIES

	Yield strength	Tensile strength	Elongation on % 5d	Impact energy (Charpy V)				
	Rs	Rm	A 5d	0°C	-20°C	-30°C	-60°C	-100°C
	(MPa)	(MPa)	%	(Joule)	(Joule)	(Joule)	(Joule)	(Joule)
after PWHT	480	620	24	-	-	-	90	50

PRODUCTS AVAILABLE

Process	Product	Classification AWS	Classification EN
MIG/MAG Solid wire	INEFIL 80 Ni 3	AWS A 5.28: ER80S-Ni3	EN 14341-B: G SN71
TIG Rods	INETIG 80 Ni 3	AWS A 5.28: ER80S-Ni3	EN 636-B: WN71
SAW Submerged arc	INESUB S2Ni3	AWS A 5.23: ENi3	EN 14171-A: S2Ni3
FCAW Cored wire	INETUB R81T1-Ni3	AWS A 5.29: E81T1-G	EN 17632-A: T 3Ni
SMAW Electrodes			