	DATA SHEET **DS 255** **Rev. 05 dd 12/09/2013** **INESUB S3NIMO**	I.N.E. S.p.A. Via Facca 10 35013 Cittadella (PADOVA) ITALY Tel. : +39 049/9481111 Fax: + 39 049/9400249 Internet: www.ine.it E mail: ine@ine.it

CLASSIFICATION

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.23: EG	EN ISO 26304-A: S3Ni1Mo
AWS A 5.23M: EG	
ASME SFA 5.23: EG	
ASME SFA 5.23M: EG	

APPROVALS

TÜV		

ALLOY TYPE

Copper-coated solid wire for submerged arc welding of high strength steels.

APPLICATIONS

Copper-coated solid wire for submerged arc welding with 1% Ni and 0,5 % Mo content to be used for welding high yield strength steels, with tensile strength higher than 690 MPa. Good impact strength at low temperatures. Suitable for the metal working industry, offshore fabrication, chemical and petrochemical industry. It also has applications in fabrications of HSLA (high-strength low-alloy) steels, which may be used for industrial machinery construction, cranes and other highly stressed structural components. To be used with INEFLUX MP basic flux.

MATERIALS TO BE WELDED

ASTM		EN		Others
A 514	API 5LX X65	10137-2 S460	10208-2 L480	RQT 601
A 517	API 5LX X70	10137-2 S500	10208-2 L550	Navy Q1
HY80	API 5LX X80	10137-2 S550	(BS 4360 Gr 55F)	NAXTRA 70
HY90	API 5A L80	10137-2 S620		WELDOX 700
HY100		10137-2 S690		

WELDING GUIDELINES

Preheat and interpass temperature 150°C. PWHT is not required. To obtain the best mechanical properties results, the use with low heat input is advised (follow the steel producer recommendations).

TECHNICAL INFORMATION

Welding positions: Flat and flat-frontal.

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WELDING PARAMETERS

Current	DC + Reverse polarity, AC					
Diameter (mm)	2.0	2.4	3.2	4.0		
Intensity (A)	300 ÷ 400	350 ÷ 450	430 ÷ 530	480 ÷ 580		
Volts (V)	26 ÷ 29	27 ÷ 30	27 ÷ 30	27 ÷ 30		

TYPICAL CHEMICAL COMPOSITION OF WIRE

C %	Mn %	Si %	S %	P %	Cr %	Ni %	Mo %	Cu %	
0.10	1.50	0.15	0.010	0.010	-	1.00	0.50	0.15	

NOTE: refer to the results obtained with the relevant flux for the mechanical characteristics of the deposited metal.

PRODUCTS AVAILABLE

Process	Product	Classification AWS	Classification EN
MIG/MAG	INEFIL 100	AWS A 5.28: ER100S-1	EN 16834-A: G Mn3Ni1,5Mo
Solid wire	INEFIL 110	AWS A 5.28: ER110S-1	(EN 16834-A: G Mn3Ni2,5CrMo)
	INEFIL 70	AWS A 5.28: ER100S-G	EN 16834-A: G Mn3NiCrMo
	INEFIL NIMO	AWS A 5.28: ER100S-G	EN 16834-A: G Mn3Ni1Mo
	INEFIL NIMOCR	AWS A 5.28: ER100S-G	EN 16834-A: G M Mn3Ni1CrMo
TIG	INETIG 100	AWS A 5.28: ER100S-1	EN 16834-A: W Mn3Ni1,5Mo
Rods	INETIG 110	AWS A 5.28: ER110S-1	(EN 16834-A: W Mn3Ni2,5CrMo)
SAW	INESUB EF3	AWS A 5.23: EF3	EN ISO 26304-B: SUN2M33
Submerged arc			
FCAW	INETUB M111TG-K3	AWS A 5.28: E110C-K3	EN 18276-A: T 2NiMo
Cored wire	INETUB M91TG	AWS A 5.28: E90C-G	EN 18276-A: T 55 5 Z M M
	INETUB M121TG-K4	AWS A 5.28: E120C-K4	EN 18276-A: T Mn2NiCrMo
	INETUB B121T5-K4	AWS A 5.29: E121T5-K4	EN 18276-A: T Mn2NiCrMo
SMAW	INE 80 B	AWS A 5.5: E10018M	EN 18275-A: E 1NiMo
Electrodes			