



**DATA SHEET  
DS 269  
Rev. 01 dd 12/09/2013  
INESUB S2Ni2**

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](http://www.ine.it) E mail: [ine@ine.it](mailto:ine@ine.it)

**CLASSIFICATION**

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.23: ENi2	EN ISO 14171-A: S2Ni2
AWS A 5.23M: ENi2	
ASME SFA 5.23: ENi2	
ASME SFA 5.23M: ENi2	

**APPROVALS**


**ALLOY TYPE**

2.5Ni for good low temperature toughness.

**APPLICATIONS**

Copper-coated solid wire for submerged arc welding with 2,25% Ni content, designed for welding low alloy steels having 2% Ni, fine grained for low temperature applications. Suitable for the construction of offshore platforms, tanks and pipelines, where good fracture toughness from as-welded joints is demanded down to temperatures in the region of -60°C. To be used with basic fluxes, such as INEFLUX BL KV.

**MATERIALS TO BE WELDED**

ASTM		EN		Others
A 203 Gr A, B	API 5 LX65	10025 S355	10113-3 S420	
A 333 Gr 6		10208-2 L360	10028-4 11MnNi 5-3	
A 350 Gr LF1, LF2		10208-2 L415	10028-4 13MnNi 6-3	
A 352 Gr LC2		10208-2 L455	10028-4 15NiMn 6	
API 5LX52		10113-2 S355	10222-3 13MnNi 6-3	
API 5LX56		10113-2 S420	10222-3 15NiMn 6	
API 5LX60		10113-3 S355		

**WELDING GUIDELINES**

Preheat and interpass temperature 150°C. PWHT at 620°C for an hour.

**TECHNICAL INFORMATION**

Welding positions: Flat and flat-frontal.





**DATA SHEET**  
**DS 269**  
**Rev. 01 dd 12/09/2013**  
**INESUB S2Ni2**

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](http://www.ine.it) E mail: ine@ine.it

### WELDING PARAMETERS

Current	DC + Reverse polarity, AC					
	2.0	2.4	3.2	4.0		
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	1.00	0.15	0.010	0.010	-	2.25	0.10	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
<b>MIG/MAG</b> Solid wire	INEFIL 80 Ni 2	AWS A 5.28: ER80S-Ni2	EN 14341-A: G 2Ni2
<b>TIG</b> Rods	INETIG 80 Ni 2	AWS A 5.28: ER80S-Ni2	EN 636-A: W2Ni2
<b>SAW</b> Submerged arc			
<b>FCAW</b> Cored wire	INETUB R81T1-Ni2 INETUB M81TG-Ni2 INETUB B81T5-Ni2	AWS A 5.29: E81T1-Ni2 AWS A 5.28: E80C-Ni2 AWS A 5.29: E81T5-Ni2	EN 17632-A: T 2Ni EN 17632-A: T 2Ni EN 17632-A: T 2Ni
<b>SMAW</b> Electrodes	INE C1	AWS A 5.5: E8018-C1	EN 2560-A: 2Ni