



**DATA SHEET  
DS 268  
Rev. 01 dd 12/09/2013  
INESUB S2Ni3**

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

**CLASSIFICATION**

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.23: ENi3	EN ISO 14171-A: S2Ni3
AWS A 5.23M: ENi3	
ASME SFA 5.23: ENi3	
ASME SFA 5.23M: ENi3	

**APPROVALS**


**ALLOY TYPE**

3.5Ni for good low temperature toughness.

**APPLICATIONS**

Copper-coated solid wire for submerged arc welding with 3,5% Ni content, designed for welding low alloy steels having 3,5% Ni, fine grained for low temperature applications. 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, when operating at temperatures to -80°C. To be used with basic fluxes, such as INEFLUX BL KV.

**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 150°C. PWHT at 620°C for an hour.

**TECHNICAL INFORMATION**

Welding positions: Flat and flat-frontal.





**DATA SHEET**  
**DS 268**  
**Rev. 01 dd 12/09/2013**  
**INESUB S2Ni3**

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)

### 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	1.00	0.15	0.010	0.010	-	3.50	-	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
<b>MIG/MAG</b> Solid wire	INEFIL 80 Ni 3	AWS A 5.28: ER80S-Ni3	EN 14341-B: G N71
<b>TIG</b> Rods	INETIG 80 Ni 3	AWS A 5.28: ER80S-Ni3	EN 636-B: WN71
<b>SAW</b> Submerged arc			
<b>FCAW</b> Cored wire			
<b>SMAW</b> Electrodes			