



**DATA SHEET
DS 267
Rev. 01 dd 12/09/2013
INESUB S2Ni1**

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CLASSIFICATION

| AWS SPECIFICATIONS | EN SPECIFICATIONS |
|----------------------|-----------------------|
| AWS A 5.23: ENi1 | EN ISO 14171-A: S2Ni1 |
| AWS A 5.23M: ENi1 | |
| ASME SFA 5.23: ENi1 | |
| ASME SFA 5.23M: ENi1 | |

APPROVALS

| | | |
|-----|--|--|
| TÜV | | |
| | | |
| | | |

ALLOY TYPE

1Ni for good low temperature toughness.

APPLICATIONS

Copper-coated solid wire for submerged arc welding with 1% Ni content, designed for welding low alloy steels having 1% Ni, fine grained for low temperature applications (-50°C). Nickel increases atmospheric weathering resistance and improves electrochemical balance between weld and base metal. Suitable for the construction of offshore platforms, pressure vessels and pipelines. To be used with INEFLUX MP flux.

MATERIALS TO BE WELDED

| ASTM | | EN | | Others |
|--------------|------------|------------------|--------------|--------|
| A 333 Gr 6 | API 5LX60 | 10025 S275 | 10113-2 S275 | |
| A 334 Gr 6 | API 5LX65 | 10025 S355 | 10113-2 S355 | |
| A 350 Gr LF2 | A 131 Gr A | 10208-1 L290 G A | 10113-2 S420 | |
| A 350 Gr LF5 | A 131 Gr B | 10208-1 L360 G A | 10113-3 S274 | |
| API 5LX42 | A 131 Gr D | 10208-2 L290 | 10113-3 S355 | |
| API 5LX46 | A 131 Gr E | 10208-2 L360 | 10113-3 S420 | |
| API 5LX52 | | 10208-2 L415 | | |

WELDING GUIDELINES

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

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 | 1.00 | 0.15 | 0.010 | 0.010 | - | 0.95 | 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 |
|------------------------------|--|--|---|
| MIG/MAG Solid wire | INEFIL 80 Ni 1 | AWS A 5.28: ER80S-Ni1 | EN 14341-A: G 3Ni1 |
| TIG Rods | INETIG 80 Ni 1 | AWS A 5.28: ER80S-Ni1 | EN 636-A: W3Ni1 |
| SAW Submerged arc | INESUB S2Ni1K | AWS A 5.23: ENi1K | |
| FCAW Cored wire | INETUB R81T1-Ni1 INETUB M81TG-Ni1 INETUB B81T5-Ni1 | AWS A 5.29: E81T1-Ni1 AWS A 5.28: E80C-Ni1 AWS A 5.29: E81T5-Ni1 | EN 17632-A: T 1Ni EN 17632-A: T 1Ni EN 17632-A: T 1Ni |
| SMAW Electrodes | INE C3 | AWS A 5.5: E8018-C3 | EN 2560-A: E 1Ni |