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| <b>Technical data sheet</b><br><br><small>180722MBA</small> | <b>Flux cored GTAW rod</b><br><br><b>WAROD 309L</b> |  <b>Welding Alloys</b> |
|---|---|---|

### CLASSIFICATION

ASME IIC SFA 5.22 / AWS A 5.22: R309LT1-5

### DESCRIPTION AND APPLICATIONS

- WARod 309L-G Flux Cored Filler Rod for TIG welding
- Produces slag to protect the reverse side of the root pass from oxidation by the atmosphere
- Saves the costs for back shielding gases
- Eliminates gas purging downtime, perfectly suited for stainless steel pipe welding
- Applicable from -196°C to + 400°C

#### Examples

Dissimilar welds between stainless steel types 304, 304L, 316, 316L, 318, 316Ti, 321, 410 or ferritic stainless steel types 1.4713, 1.4724, 1.4742, 3Cr12, to non or low alloyed CMn steels, for service temperatures up to 400°C.

ISO/TR 15608: Groups 1, 2, 3 and 4 to groups 7, 8 and 10.

Group 7 to groups 8 and 10.

### TYPICAL ALL-WELD METAL ANALYSIS [%]

| C    | Si   | Mn   | Cr    | Ni    | Fe      |
|------|------|------|-------|-------|---------|
| 0.03 | 0.80 | 1.50 | 24.50 | 13.00 | Balance |

### TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES (as per ASME II Part C SFA 5.22)

| Rm [MPa] | Rp0.2% [MPa] | As [%] | CVN [J]   |
|----------|--------------|--------|-----------|
| 580      | 460          | 35     | +20°C: 70 |

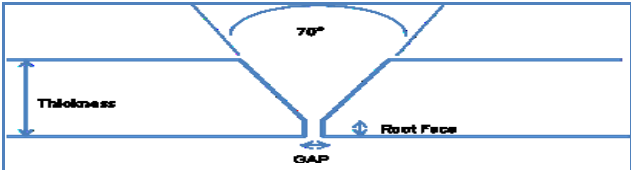
### SHIELDING GAS

EN ISO 14175: I1 (100%Ar)

### OPERATING CONDITIONS

|                |            |
|----------------|------------|
| Rod Ø x L [mm] | 2.2 x 1000 |
| Current [A]    | 80 - 140   |

Welding parameters depend on plate thickness. Typical weld preparation and welding parameters:

|  | Thickness [mm] | GAP [mm] | Root face [mm] | Current [A] |
|---|----------------|----------|----------------|-------------|
|   | 3 - 5          | 2.0-4.0  | 1.0            | 80 – 95     |
|   | 5 – 10         | 2.0-4.0  | 1.0            | 90 – 110    |
|   | 10 -           | 2.0-4.0  | 1.0            | 105 - 140   |

### WELDING POSITIONS

All positions

### PACKAGING

|                 |            |
|-----------------|------------|
| Rod Ø x L [mm]  | 2.2 x 1000 |
| Weight/box [kg] | 5          |

Other packaging and other diameters: please consult us

Welding products and techniques evolve constantly. All descriptions, illustrations and properties given in this data sheet are subject to change without notice and can only be considered as suitable for general guidance. This document is intended to help the user make the correct choice of product. It is his responsibility to assess its suitability for his intended application.