

Select 2209

Stainless Steel / Gas Shielded / Solid

PRODUCT DATA SHEET

FEATURES

- This duplex stainless steel is characterized by high tensile strength, resistance to stress corrosion cracking, and improved resistance to pitting compared to traditional 300 series type stainless steels.
- Applications for this alloy type include welding of duplex stainless steels that contain approximately 22 wt% Cr, such as UNS S31803 and S32205.
- Commonly used in the chemical and fertilizer industries as well as off-shore pipelines and sour gas lines.

CONFORMANCES

AWS A5.9

ER2209

AWS A5.39

F100A2-EC2209-2209

DIAMETERS (in [mm])

1/8 (3.2)

POSITIONS



SHIELDING GAS

ArcFlux BF-38

Flow Rate: 40 - 50 CFH

POLARITY

DCEP

TYPICAL WIRE CHEMISTRY (WT%)

| Shielding Gas | C | Cr | Cu | Mn | Mo | N | Ni | P | S | Si |
|---------------|-------|------|------|-----|-----|------|-----|------|-------|-----|
| ARCFLUX BF-38 | 0.009 | 22.5 | 0.01 | 1.1 | 3.0 | 0.18 | 8.9 | 0.01 | 0.004 | 0.7 |

TYPICAL MECHANICAL PROPERTIES

| Shielding Gas | Tensile Strength ksi (MPa) | Yield Strength ksi (MPa) | Elongation (%) | Weld Condition | PWHT Temp | CVN @ -20°F (-30°C) ft-lb (J) |
|---------------|-------------------------------|-----------------------------|----------------|----------------|-----------|-------------------------------------|
| ARCFLUX BF-38 | 114 (790) | 85 (586) | 28 | As-Welded | - | 57.5 (78) |



Revision: 3/14/2025

Notice: Be sure to follow all your employers safety practices, policies and procedures when using this product. Refer to CSA W117.2 and ANSI Z49.1 Safety in Welding, Cutting and Allied Processes for further information and the manufactures SDS sheet. The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for use in the field. The manufacturer disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.

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RECOMMENDED WELDING PARAMETERS **

| Diameter in (mm) | Shielding Gas | Position | WFS* in/min (m/min) | Amps | Volts | CTWD* in (mm) |
|---------------------|---------------|-------------------|------------------------|------|-------|---------------------|
| 1/8 (3.2 mm) | ARCFLUX BF-38 | Flat & Horizontal | | 375 | 29 | 1 - 1 1/2 (25 - 38) |
| | | Flat & Horizontal | | 425 | 31 | 1 - 1 1/2 (25 - 38) |
| | | Flat & Horizontal | | 475 | 33 | 1 - 1 1/2 (25 - 38) |

* WFS = Wire Feed Speed, CTWD = Contact Tip To Work Distance

**The parameters listed are recommended starting points of operation and the ranges for amperage, wfs, and voltage could be extended based on fitness for application. For products with "all-position" capability, as determined and listed in classification, the position recommendation can be determined based on operator skill and material thickness and isn't limited to the listing.

PACKAGING (lbs (kgs))

33 (15) Spools, 60 (27.2) Coils, 500 (226.8) Round Drum, 800 (362.9) Hex Drum, 900 (408.2) Hex Drum

*Some packaging options may not be available depending on diameter and product. Special package options may be available upon request.

STORAGE AND HANDLING

All products should be stored in original packaging, in dry conditions and handled with care. For more information refer to our website.



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