

CWR-308L Welding Wire and Rod

CWR-308L has the same chemical composition as CWR-308 except the carbon content has been held to .03% maximum to minimize the possibility of intergranular carbide precipitation. It is commonly used to weld stainless steel type 304L, 321 and 347. Depending on temperature range and flux selection, CWR-308L is a suitable welding wire for applications at cryogenic temperature.

CONFORMANCES

| AWS A5.9/A5.9M | : | ER 308L |
|----------------|---|---------|
| ASME SFA-A5.9 | : | ER 308L |
| ISO 14343-B | : | SS 308L |

AWS CHEMICAL COMPOSITION (TYPICAL)

| %C | %Cr | %Ni | %Mo | %Mn |
|----------|-------------|------------|----------|-----------|
| 0.03 max | 19.5 – 22.0 | 9.0 - 11.0 | 0.75 max | 1.0 - 2.5 |
| 0.014 | 19.8 | 10.0 | 0.17 | 1.8 |

| %Si | %P | %S | %Cu | Total Others |
|-------------|----------|----------|----------|--------------|
| 0.30 - 0.65 | 0.03 max | 0.03 max | 0.75 max | 0.50 max |
| 0.39 | 0.02 | 0.01 | 0.13 | |

TYPICAL WELD METAL MECHANICAL PROPERTIES

| Yield Strength | : | 57,000 psi |
|------------------|---|------------|
| Tensile Strength | : | 87,000 psi |
| Elongation | : | 35 % |

TYPICAL WELDING PARAMETERS

| Process | Diar | neter | Voltage | Amperage | Gas/Flux |
|-----------------|-------|--------|---------|-----------|--------------------------|
| TIG (GTAW) | 1/16" | 1.6 mm | 14 - 18 | 80 - 150 | 100% Ar |
| | 3/32" | 2.4 mm | 15 – 20 | 150 – 250 | 100% Ar |
| | 1/8" | 3.2 mm | 16 – 20 | 200 – 375 | 100% Ar |
| MIG (GMAW) – | .035″ | 0.9 mm | 23 – 29 | 170 – 290 | 98%Ar – 2%O ₂ |
| | .045″ | 1.1 mm | 24 – 30 | 200 - 360 | 98%Ar – 2%O ₂ |
| Sub Arc (SAW) - | .093″ | 2.4 mm | 28 - 32 | 250 - 450 | |
| | .125″ | 3.2 mm | 29 – 34 | 300 – 500 | |

*All parameters are suggested as basic guidelines only and will vary depending on joint design, number of passes and other factors.

IMPORTANT: SPECIAL VENTILATION AND/OR EXHAUST REQUIRED BEFORE USE, READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) FOR THIS PRODUCT AND SPECIFIC INFORMATION PRINTED ON THE PRODUCT CONTAINER.

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