

## Cryo-Shield 308L

Cryo-Shield 308L is an all-position flux cored wire adaptable to a variety of shop and field erection applications. Designed for cryogenic applications where good weld metal toughness is required. Applications include cryogenic vessel fabrication and process piping repair. Cryo-Shield 308L was developed for the welding of types 304 & 304L stainless steels for the low temperature service, even down to liquid helium temperatures. This is done by controlling the composition and the ferrite content to give good toughness at temperatures of  $-321^{\circ}\text{F}$  ( $-196^{\circ}\text{C}$ ) and lower. Cryo-Shield 308L was developed for welding in all positions and performs particularly well in the vertical position with excellent slag removal.

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|------------------------|--|
| <b>Classifications</b> | AWS A5.22 : E308LT1-1(4)<br>JIS Z3323 : TS308L-FB1 |
| <b>Approvals</b>       | JIS<br>NK<br>LR<br>KR<br>DNV<br>BV                 |

Approvals are based on factory location. Please contact ESAB for more information.

### Typical Tensile Properties

| Yield Strength       | Tensile Strength | Elongation |
|----------------------|------------------|------------|
| 100% CO <sub>2</sub> |                  |            |
| 100% CO <sub>2</sub> |                  |            |

### Typical Charpy V-Notch Properties

| Testing Temperature  | Impact Value |
|----------------------|--------------|
| 100% CO <sub>2</sub> |              |
| -196 °C              | 41 J         |

### Typical Weld Metal Analysis %

| C     | Mn   | Si   | S     | P     | Ni   | Cr    | Ferrite FN |
|-------|------|------|-------|-------|------|-------|------------|
| 0.024 | 1.43 | 0.67 | 0.010 | 0.027 | 10.0 | 18.50 | Max 8      |