



DW-309L

**Classification: AWS A5.22 E309LT0-1
AWS A5.22 E309LT0-4**

All-Weld-Metal (100%CO₂)

1-1. Chemical Composition

[Unit: mass%]

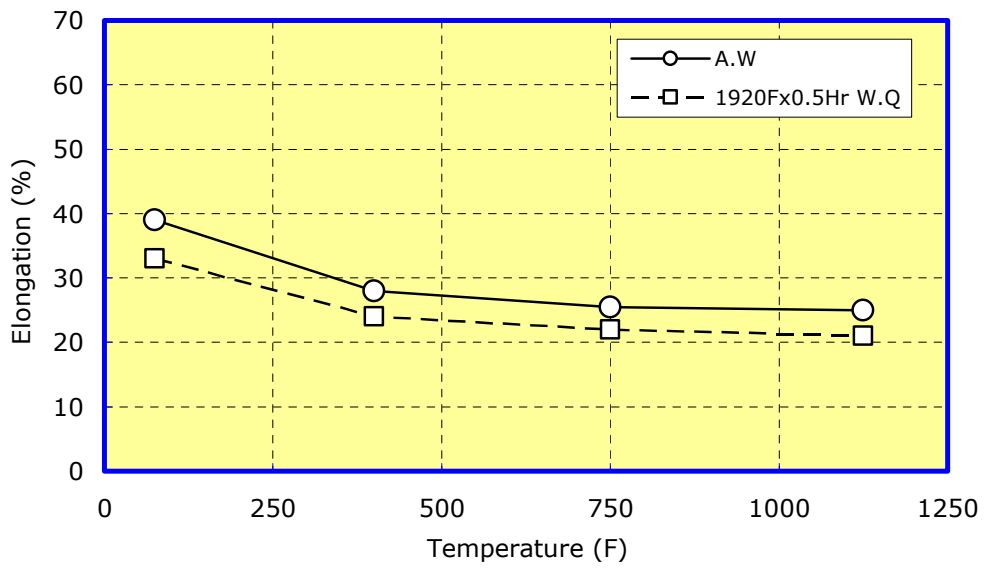
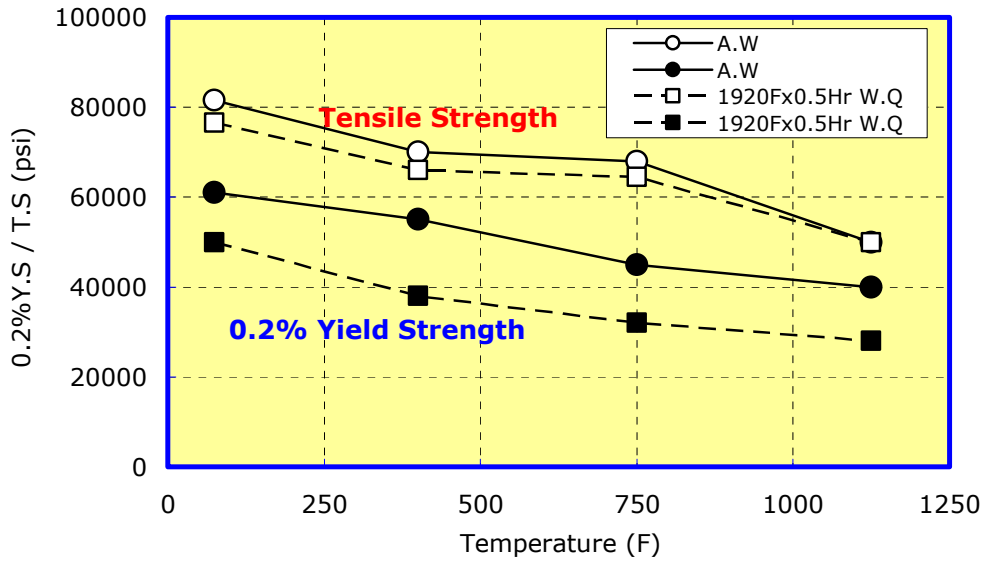
| | C | Mn | Si | P | S | Ni | Cr | N |
|-----------|------------------|---------|--------------------------|-------|------------------------|-----------|-----------|-------|
| DW-309L | 0.03 | 1.24 | 0.48 | 0.016 | 0.011 | 12.49 | 23.73 | 0.018 |
| E309LT0-X | <0.04 | 0.5~2.5 | <1.0 | <0.04 | <0.03 | 12.0~14.0 | 22.0~25.0 | ----- |
| | WRC-1992 (FN) | | Shaeffler Diagram (%) | | Delong Diagram (FN) | | | |
| DW-309L | 19.2 | | 12.6 | | >18 | | | |
| E309LT0-X | ----- | | ----- | | ----- | | | |

1-2. Tensile Test

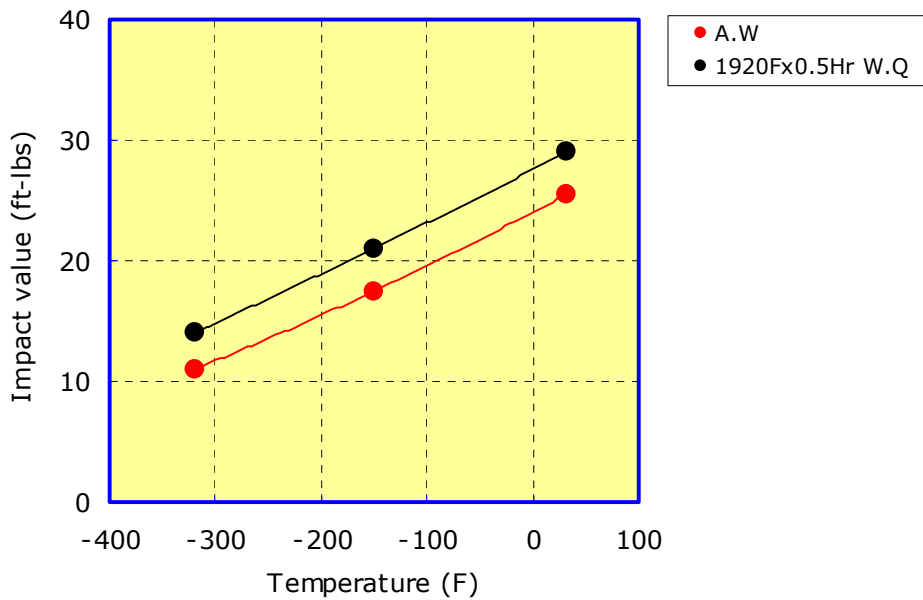
| | 0.2% Proof stress (psi) | Tensile strength (psi) | Elongation (%) | Reduction of Area (%) |
|-----------|----------------------------|---------------------------|-------------------|--------------------------|
| DW-309L | 60,907 | 81,218 | 34 | 42 |
| E309LT0-X | --- | >75,000 | >30 | --- |

Note) Test was completed in the as welded condition and at room temperature

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1-3. Impact Test



1-4. Corrosion Test

Huey Test

| PWHT | Test results (IPM) | | | |
|-----------|--------------------|-----------------|-----------------|---------|
| | 1 st | 2 nd | 3 rd | Ave. |
| As Welded | 0.00032 | 0.00029 | 0.00035 | 0.00032 |

Huey Test (65% Nitric Acid Test)

Welding Journal, Oct. 1951 "Corrosion Data of Welding Low Carbon Stainless Steel"

Excellent < 0.0009 IPM
 Good < 0.0009 – 0.0021 IPM
 Fair < 0.0021 – 0.0042 IPM
 Poor > 0.0042 IPM



WARNING: This product can expose you to chemicals including Nickel and Titanium Dioxide, which are known to the State of California to cause cancer, and Chromium, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warning.ca.gov.

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