CARBO WELD
SCHWEISSMATERIALIEN GMBH

# CARBO S-1.4459
# CARBO T-1.4459

**International standards**

| | S = solid wire | T = bare rod |
|---|---|---|
| Mat. No. | 1.4459 | |
| EN 12072 | G 23 12 2 L | W 23 12 2 L |
| AWS A 5.9 | ER309LMo | ER309LMo |

**Application notes**

A continuous, solid, corrosion-resistant, chromium-nickel-molybdenum wire for the GMA welding of stainless steel. CARBO S-1.4459 has good resistance to general corrosion. The alloy is often used for joining stainless steels to non-alloy or low-alloy steels where corrosion resistance is of less importance. CARBO S-1.4459 is usually welded with Ar/(1-3%) O2 as the shielding gas.

**Base materials**

1.4583 with H I / H II, 17 Mn 4, StE 355.
P235GH / P256GH, P295GH, P355N
1.4401 X 5 CrNiMo 17 12 3
1.4404 X 2 CrNiMo 17 13 2

**Mechanical properties of all-weld metal**

**(** typical values**)**

| Tensile strength $R_m$ N/mm² | Yield strength $R_{p0,2}$ N/mm² | Elongation $A_5$ % | Impact strength ISO – V J at 20° C |
|---|---|---|---|
| 550 | 320 | 35 | 70 |

**Weld metal analysis**
(typical, wt. %)

| C | Si | Mn | Cr | Ni | Mo |
|---|---|---|---|---|---|
| 0,02 | 0,35 | 1,5 | 22 | 14 | 2,6 |

| | S = solid wire | T = bare rod |
|---|---|---|
| **Gas types EN 439** | M13 | I1 |

**Current** = + = –

| Diameter mm | 0,8 | 1,0 | 1,2 | 1,6 | 1,6 | 2,0 | 2,4 | 3,2 | 4,0 |
|---|---|---|---|---|---|---|---|---|---|
| Welding amps (A) min. | 80 | 120 | 180 | 250 | | | | | |
| (A) max. | 130 | 190 | 250 | 320 | | | | | |

**coils, weight** B300 15 kg. 10 kg.

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