

GTAW Wires for Low Alloy Steel

| Product | Classification | | Shielding Gas | Weld metal composition (wt %) | | | | | |
|----------|----------------|----------|---------------|-------------------------------|------|------|------|------|------|
| | AWS | JIS | | C | Mn | Si | Cr | Ni | Mo |
| KTS-1N | ER70S-G | W49A6-N1 | Ar | 0.050 | 1.07 | 0.30 | — | 0.79 | 0.12 |
| KTS-1CM | ER80S-G | W55-1CM | Ar | 0.060 | 0.99 | 0.50 | 1.22 | — | 0.54 |
| KTS-2CM | ER90S-G | W62-2C1M | Ar | 0.090 | 0.71 | 0.32 | 2.26 | — | 1.04 |
| KTS-80B2 | ER80S-B2 | W55-1CM | Ar | 0.090 | 0.55 | 0.48 | 1.24 | — | 0.55 |
| KTS-90B3 | ER90S-B3 | W62-2C1M | Ar | 0.089 | 0.61 | 0.56 | 2.29 | — | 1.04 |
| KTS-502 | ER80S-B6 | W55-5CM | Ar | 0.080 | 0.49 | 0.28 | 5.13 | — | 0.60 |
| KTS-505 | ER80S-B8 | W55-9CM | Ar | 0.060 | 0.56 | 0.25 | 8.70 | — | 1.09 |

| Weld metal composition (wt %) | | | | | Diameter (mm) | Applications and Features |
|------------------------------------|----------------------------------|--------------|----------------------|------------|----------------------------|---|
| Tensile Strength N/mm ² | Yield Strength N/mm ² | Elongation % | Charpy V-Notch J(°C) | HT | | |
| 540 | 460 | 35 | 250 (-60°C) | 620°C x1hr | 1.0,1.2,1.6 2.0,2.4,3.2 | Used for welding 490N/mm ² grade steel for low temperature resistance. Weld metal contains Ni-Mo and provides good impact properties at -60°C. |
| 630 | 540 | 28 | 270 (0°C) | 690°C x1hr | 1.0,1.2,1.6 2.0,2.4,3.2 | Used for welding 1.25%Cr-0.5% Mo steel. |
| 720 | 610 | 28 | 250 (0°C) | 690°C x1hr | 1.0,1.2,1.6 2.0,2.4,3.2 | Used for welding 2.25%Cr-1%Mo steel. |
| 590 | 490 | 21 | 210 (0°C) | 690°C x1hr | 1.0,1.2,1.6 2.0,2.4,3.2 | Used for welding 1.25%Cr-0.5%Mo steel. |
| 730 | 620 | 22 | 150 (0°C) | 690°C x1hr | 1.0,1.2,1.6 2.0,2.4,3.2 | Used for welding 2.25%Cr-1%Mo steel. |
| 600 | 480 | 26 | 280 (0°C) | 750°C x1hr | 1.0,1.2,1.6 2.0,2.4,3.2 | Used for welding 5%Cr-0.5%Mo steel. |
| 590 | 410 | 32 | 220 (0°C) | 750°C x1hr | 1.0,1.2,1.6 2.0,2.4,3.2 | Used for welding 9%Cr-1%Mo steel. |