

Gas Tungsten Arc Welding Rods and Wires
for Stainless Steel

| Brand Name | Specification | | Dia. mm | Application and Characteristics |
|------------|-----------------|---------------|--------------------------|---|
| | JIS | AWS | | |
| YT-308 | ☆Z 3321 YS308 | ☆A5.9 ER308 | 1.2 1.6 2.0 2.4 | Welding of SUS304 |
| YT-308UL | ☆Z 3321 YS308L | ☆A5.9 ER308L | 1.2 1.6 2.0 2.4 | Ultra Low C type of YT-308L |
| YT-309 | ☆Z 3321 YS309 | ☆A5.9 ER309 | 1.2 1.6 2.0 2.4 | Welding of 22%Cr-12%Ni stainless steel (SUS309S), clad side of 18%Cr-8%Ni stainless clad steel and dissimilar joints of stainless steel and mild steel. |
| YT-309Mo | ☆Z 3321 YS309Mo | ☆A5.9 ER309Mo | 1.2 1.6 2.0 2.4 | Welding of dissimilar metals such as 18%Cr-12%Ni-2%Mo stainless steel to mild steel |
| YT-310 | ☆Z 3321 YS310S | ☆A5.9 ER310S | 1.2 1.6 2.0 2.4 | Welding of SUS310 |
| YT-316 | ☆Z 3321 YS316 | ☆A5.9 ER316 | 1.2 1.6 2.0 2.4 | Welding of SUS316 |
| YT-316UL | ☆Z 3321 YS316L | ☆A5.9 ER316L | 1.2 1.6 2.0 2.4 | Ultra Low C type of YT-316L |
| YT-317L | ☆Z 3321 YS317L | ☆A5.9 ER317L | 1.2 1.6 2.0 2.4 | Welding of SUS317L |
| YT-320 | — | ☆A5.9 ER320LR | 1.2 1.6 2.0 2.4 | Welding of Alloy 20Cb3 |
| YT-347 | ☆Z 3321 YS347 | ☆A5.9 ER347 | 1.2 1.6 2.0 2.4 | Welding of SUS321 and SUS347 |
| YT-347AP | — | — | 1.2 1.6 2.0 2.4 | Welding of 347AP pipe |

| Typical chemical compositions of weld metal (%) | | | | | | | Typical mechanical properties of weld metal | |
|---|------|------|------|------|-----|---------------------|---|----------|
| C | Si | Mn | Ni | Cr | Mo | Other | TS, MPa | El, % |
| 0.05 | 0.35 | 1.62 | 10.0 | 20.2 | — | — | 650 | 40 |
| 0.013 | 0.51 | 1.42 | 10.0 | 20.5 | — | — | 510 | 58 |
| 0.05 | 0.40 | 1.65 | 12.4 | 23.8 | — | — | 600 | 43 |
| 0.11 | 0.38 | 2.31 | 13.9 | 23.4 | 2.2 | — | 680 | 33 |
| 0.04 | 0.35 | 1.56 | 21.5 | 26.9 | — | — | 600 | 43 |
| 0.04 | 0.35 | 1.52 | 12.2 | 19.0 | 2.5 | — | 620 | 31 |
| 0.015 | 0.55 | 1.51 | 12.6 | 19.0 | 2.5 | — | 530 | 49 |
| 0.014 | 0.41 | 1.77 | 14.1 | 18.7 | 3.5 | — | 520 | 55 |
| 0.004 | 0.08 | 1.71 | 33.6 | 20.5 | 2.5 | Nb: 0.2 Cu: 3.5 | 520 | 55 |
| 0.02 | 0.43 | 1.79 | 9.7 | 19.4 | — | Nb: 0.74 | 670 | 46 |
| 0.027 | 0.35 | 1.47 | 9.4 | 20.6 | — | Nb: 0.44 N: 0.19 | 690 | 36 |