



CEWELD 2594 Tig (Super Duplex)

| TYPE | Tig filler metal for welding Super Duplex types of stainless steels. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--------------------|-------------------------|-------|----------|-----|-----|-----|--|----------------|-------------------------|----------------------|--------------------|-------------------------|----|----------|-------|-------|-----------|------|-----|-----|------|------|-----|---|-----|-----|-----|
| APPLICATIONS | Welding austenitic-ferritic, stainless alloys of the 25% Cr, 7% Ni, 4% Mo, low C types. Welding wrought, forged or cast super duplex stainless steels for service in the as-welded Condition. Heterogeneous welding between super duplex stainless steels and dissimilar welds between other stainless and mild or low alloyed steels. The alloy is widely used in applications in which corrosion resistance is of the utmost importance. The pulp & paper industry, offshore and gas industry are areas of interest. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PROPERTIES | 2594 offers high intergranular-corrosion, pitting and stress-corrosion resistance with exceptional mechanical strength properties. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CLASSIFICATION | AWS EN ISO W.Nr. F-nr FM | A 5.9: ER2594 14343-A: W 25 9 4 N L 1.4410 6 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SUITABLE FOR | 1.4507, 1.4410, 1.4468, 1.4515, 1.4517, 1.4501, 1.4467, 1.4569, 1.4508 X2 CrNiMoCuN 25-6-3, X2 CrNiMoN 25-7-4, GX2 CrNiMoN 25-6-3, GX2 CrNiMoCuN 26-6-3, GX2 CrNiMoCuN 25-6-3-3, X2 CrNiMoCuWN 25-7-4, X2CrMnNiMoN26-5-4, X 2 CrNiMoN 26 7 4, GX2CrNiMoCuWN25-8-4 UNS S32520, S32550, S32750, S39274, S39277, S39553, S32760, J93380 Ferratum 255, SAF 2507, ZERON 100, UR 76 N, SM22Cr, SAF 2507, Alloy 2507, Alloy 2594 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVALS | CE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WELDING POSITIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%) | <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>C</th> <th>Si</th> <th>Mn</th> <th>P</th> <th>S</th> <th>Cr</th> <th>Ni</th> <th>Mo</th> <th>N</th> <th>W</th> </tr> </thead> <tbody> <tr> <td>0.02</td> <td>0.6</td> <td>1.2</td> <td>0.01</td> <td>0.01</td> <td>25</td> <td>9</td> <td>3.5</td> <td>0.2</td> <td>0.4</td> </tr> </tbody> </table> | | | | | | | | | | C | Si | Mn | P | S | Cr | Ni | Mo | N | W | 0.02 | 0.6 | 1.2 | 0.01 | 0.01 | 25 | 9 | 3.5 | 0.2 | 0.4 |
| C | Si | Mn | P | S | Cr | Ni | Mo | N | W | | | | | | | | | | | | | | | | | | | | | |
| 0.02 | 0.6 | 1.2 | 0.01 | 0.01 | 25 | 9 | 3.5 | 0.2 | 0.4 | | | | | | | | | | | | | | | | | | | | | |
| MECHANICAL PROPERTIES | <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Heat Treatment</th> <th rowspan="2">R_{P0.2} (MPa)</th> <th rowspan="2">R_m (MPa)</th> <th rowspan="2">A₅ (%)</th> <th colspan="2">Impact Energy (J) ISO-V</th> <th rowspan="2">Hardness</th> </tr> <tr> <th>-20°C</th> <th>-40°C</th> </tr> </thead> <tbody> <tr> <td>As Welded</td> <td>620</td> <td>780</td> <td>26</td> <td>60</td> <td>50</td> <td>HRc</td> </tr> </tbody> </table> | | | | | | | | | | Heat Treatment | R _{P0.2} (MPa) | R _m (MPa) | A ₅ (%) | Impact Energy (J) ISO-V | | Hardness | -20°C | -40°C | As Welded | 620 | 780 | 26 | 60 | 50 | HRc | | | | |
| Heat Treatment | R _{P0.2} (MPa) | R _m (MPa) | A ₅ (%) | Impact Energy (J) ISO-V | | Hardness | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | -20°C | -40°C | | | | | | | | | | | | | | | | | | | | | | | | | |
| As Welded | 620 | 780 | 26 | 60 | 50 | HRc | | | | | | | | | | | | | | | | | | | | | | | | |
| REDRYING | Not required | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAS ACC. EN ISO 14175 | I1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |