

Material type

**Metal**

Material name

**Stainless steel 304/304L | 1.4301/1.4307 | X5CrNi18-10/X2CrNi18-9**

Alternative names

**X5CrNi18-10, 1.4301**

Process compatibility

**CNC machining****Mechanical properties**

|  |               |
|--|---------------|
| Ultimate tensile strength                  | 520-600 MPa   |
| Yield strength                             | 210-250 MPa   |
| Young's modulus<br>(modulus of elasticity) | 191 - 205 GPa |
| Elongation at break                        | 43-45 %       |

**Thermal properties**

|                               |                                |
|-------------------------------|--------------------------------|
| Maximum service temperature   | 750 - 925 °C                   |
| Thermal expansion coefficient | 10.3 - 12 10 <sup>-6</sup> /°C |
| Thermal conductivity          | 29.3 - 31.7 W/(m·°C)           |

**Post treatments**

|                         |                          |
|-------------------------|--------------------------|
| Post-Processing         | Annealing & Cold working |
| Anodizing compatibility | Not suitable             |

**Physical properties**

|                      |           |
|----------------------|-----------|
| Corrosion resistance | Good      |
| Magnetism            | No        |
| UV resistance        | Excellent |
| Weldability          | Excellent |

**Electrical properties**

|                        |               |
|------------------------|---------------|
| Electrical resistivity | 65 - 70 μΩ*cm |
|------------------------|---------------|

**Common applications**

|  |
|--|
| Food handling and precessing equipment |
| Food processing                        |
| Architectural panelling                |
| Sanitary ware and troughs              |

Tubing

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