

Material type

**Metal**

Material name

**Stainless steel 420 | 1.4028 | X30Cr13**

Alternative names

**X46Cr13, 1.4034**

Process compatibility

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

Ultimate tensile strength	485-750 MPa
Yield strength	275-380 MPa
Young's modulus (modulus of elasticity)	190 - 205 GPa
Elongation at break	15 - 20 %

**Thermal properties**

Maximum service temperature	144 - 194 °C
Thermal expansion coefficient	9 - 11 10 <sup>-6</sup> /°C
Thermal conductivity	23 - 27 W/(m·°C)

**Post treatments**

Post-Processing	Annealing
Anodizing compatibility	Not suitable

**Physical properties**

Corrosion resistance	Moderate
Magnetism	Magnetic
UV resistance	Excellent
Weldability	Good

**Electrical properties**

Electrical resistivity	49 - 60 μΩ*cm
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**Common applications**

Shear blades
Needle valves
Surgical equipment

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