

Material type

Metal

Material name

Stainless steel 303 | 1.4305 | X8CrNiS18-9

Alternative names

X8CrNiS18-9, 1.4305

Process compatibility

CNC machining**Mechanical properties**

Ultimate tensile strength	580 - 700 MPa
Yield strength	205 - 350 MPa
Young's modulus (modulus of elasticity)	192 - 200 GPa
Elongation at break	40 - 50 %

Thermal properties

Maximum service temperature	750 - 925 °C
Thermal expansion coefficient	16.2 - 17.9 10 ⁻⁶ /°C
Thermal conductivity	15.8 - 16.5 W/(m·°C)

Post treatments

Post-Processing	Not suitable
Anodizing compatibility	Not suitable

Physical properties

Corrosion resistance	Moderate
Magnetism	Non-magnetic
UV resistance	Excellent
Weldability	Very Poor

Electrical properties

Electrical resistivity	71.8 - 72.5 μΩ*cm
ESD Safety	Yes

Common applications

Aircraft applications including fittings
Shafts and spindles
Automatic screw machine applications
Medical devices with screw threads
Drilled or tapped holes

Pump and valve parts

Architectural applications

Nuts and bolts

ZartLink is The Global First FairPrice Flex Manufacturing Platform for Future. From rapid prototyping to production, provide global clients quality parts with cheaper prices.

Prototyping | 3D Printing | CNC Machining | Vacuum Casting | Custom Mold Components
Export Tooling | Rapid Molding | Injection Molding | Metal Casting
quote@zartlink.com