

Material type

Metal

Material name

Stainless steel 2205 Duplex | 1.4462 | 2205 | X2CrNiMoN 22-5-3

Alternative names

X2CrNiMoN 22.5.3, 1.4462

Process compatibility

CNC machining**Mechanical properties**

Ultimate tensile strength	620 - 700 MPa
Yield strength	425 - 500 MPa
Young's modulus (modulus of elasticity)	195 - 205 GPa
Elongation at break	14 - 28 %

Thermal properties

Maximum service temperature	335 - 365 °C
Thermal expansion coefficient	13.5 - 18.2 10 ⁻⁶ /°C
Thermal conductivity	14.4 - 15.6 W/(m·°C)

Post treatments

Post-Processing	Hardening
Anodizing compatibility	Not suitable

Physical properties

Corrosion resistance	Excellent
Magnetism	Magnetic
UV resistance	Excellent
Weldability	Good

Electrical properties

Electrical resistivity	78.4 - 81.6 μΩ*cm
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Common applications

Environments containing chlorides and hydrogen sulphide
Flue gas filters
Chemical tanks
Heat exchangers

