

Zapp® 1.4404 UA Data Sheet

Precision Wire



Zapp is certified to ISO 9001

Zapp® 1.4404 UA

Austenitic stainless steel. DIN EN 10088-3, X2CrNiMo17-12-2, AISI 316L, JIS G4315, SUS 316 L

Material According to DIN EN 10088-3

The 1.4404 UA material is an austenitic CrNiMo steel with good corrosion resistance. In order to achieve better machinability, the material is additionally alloyed with sulfur and copper, which deviates from the standard.

This leads to limited corrosion resistance compared to the regular 1.4404 material. 1.4404 UA is very easy to machine and can be cold formed to a limited extent.

Welding

The 1.4404 UA material is a sulphurized stainless steel and tends to crack during welding due to the higher sulfur content.

Welding is not recommended.

Typical Chemical Composition*

C	Si	Mn	P	S	Cr	Mo	Ni	N
≤0.030	≤1.00	≤2.00	≤0.035	≤0.20	16.50-18.00	2.00-2.50	10.50-12.50	≤ 0.11

* deviating from the standard

Mechanical-Technological Values, Annealed

Measured values at 20 °C

Tensile strength Rm	500 – 700 MPa
Yield strength Rp0.2	≥ 200 MPa
Elongation A	≤ 40 %
Hardness HB30	≤ 215 HRC

Physical Values at 20 °C

Density ρ	7.98 (kg/ dm³)
Specific heat °C at 20 °C	500 (kJ/ kg*K)
Thermal conductivity λ at 20 °C	15 (kg/ dm³)
Specific electrical resistance ρ	0.75 (Ω*mm²/m)
Modulus of elasticity E at 20 °C	220 GPa

Heat Treatment

	Temperature [°C]	Cooling medium
Heat treatment (tempering temp.)	1,030 – 1,110	water/air
Hot forming	900 – 1,200	air

PRECISION WIRE

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Further information regarding our products and locations are available in our image brochure and at www.zapp.com.

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