

1.4021 (AISI 420)

1.4021 is used in the quenched and tempered condition in a host of constructional and fastener applications where moderate corrosion resistance is required. The knife blade variant of 1.4021 can be polished to high gloss finishes. Optimal corrosion resistance is also attained when the surface is finely ground or polished.

EN 10088-3
1.4021
X20Cr13
AISI 420
420S29 / 420S37
DIN 17440

Cr	Mn	Si	C	P	S	Fe
12,0-14,0	max1,5	max 1,0	0,16 - 0,25	max 0,04	max 0,03	balance

density (gr/cm³) 7.70
electrical resistivity at 20 °C (Ω mm² /m) 0.60
magnetizability yes
thermal conductivity at 20 °C (W/m K) 30 s
pecific heat capacity at 20 °C (J/kg K) 460
thermal expansion (K-1)
20 – 100 °C: 10.5 x 10-6 20 –
200 °C: 11.0 x 10-6 20 –
300 °C: 11.5 x 10-6 20 –
400 °C: 12.0 x 10-6

	Yield Strength (Mpa) (20 C)	Tensile Strength (Mpa) (20 C)	Elongation A5 (%)	Hardness (Vickers)
Annealed	450	500 - 700	15	150 - 210
Qench Hardened	1150	1650	3	> 510