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18 Ni Cr 5-4

Chemical composition

in %

C	Si	Mn	Ni	Cr	S
0,16-0,21	0,10-0,35	0,60-0,90	1,20-1,50	0,90-1,20	0,020-0,040

Steel properties

Case-hardening steel for common use, offering good characteristics under case and high impact resistance. Good impact strength at low temperatures.

Applications

Pinions for gearbox, general mechanics, chain pins.

Mechanical properties

- **condition as supplied**

Annealed for hardness: ≤ 197 HB

• achievable on case-hardened parts

Ø mm	U.T.S. MPa	Y.S. 0.2% MPa	Elongation %	KCU at 20 °C J/cm ²
d ≤ 16	1100-1400	≥ 800	≥ 9	≥ 60
16 < d ≤ 40	850-1150	≥ 620	≥ 10	≥ 70
40 < d ≤ 100	650- 950	≥ 470	≥ 11	≥ 70

Size range

available or from European central stock, short delivery time

• **Round bars**

Product designation	Ø (min. → max.) mm
Rolled or forged round bars, annealed Length: 4-6 m	10 → 450

• **Flat bars**

Product designation	Width (min. → max.) mm	Thickness (min. → max.) mm
Rolled or forged flat bars, annealed Length: 3.6-4 m	30 → 300	15 → 80

• **Square bars**

Product designation	Dimension (min. → max.) mm
Rolled or forged square bars, annealed Length: 3.6-4 m	20 → 150

All statements as to the properties or utilisation of the materials and products mentioned in the catalogue are for the purpose of description only. Guarantees in respect of the existence of certain properties or utilisation of the material and products are valid only if agreed upon in writing.

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