

SPECIFICATIONS

AIR: 35 NC 6

TYPICAL MECHANICAL PROPERTIES

- Annealed condition: heat to 825°C followed by slow cooling
 - Brinell Hardness: 210

HEAT TREATMENT REFERENCE

- Oil quench from 850°C. Temper at 550°C
 - UTS: 1100 N/mm²
 - 0.2 % Yield strength: 950 N/mm²
 - Elongation (5d): 14.5 %
 - Impact strength KCU: 85 J/cm²
- Oil quench from 850°C. Temper at 650°C:
 - UTS: 900 N/mm²
 - 0.2 % Yield strength: 750 N/mm²
 - Elongation (5d): 18 %
 - Impact strength KCU 120 J/cm²

COMPOSITION

Carbon.....	0.35
Nickel.....	1.20
Chromium.....	0.85

APPLICATIONS

- Mechanical parts
- Shafts
- Various gears
- Fasteners etc

CHARACTERISTICS

- Good mechanical properties

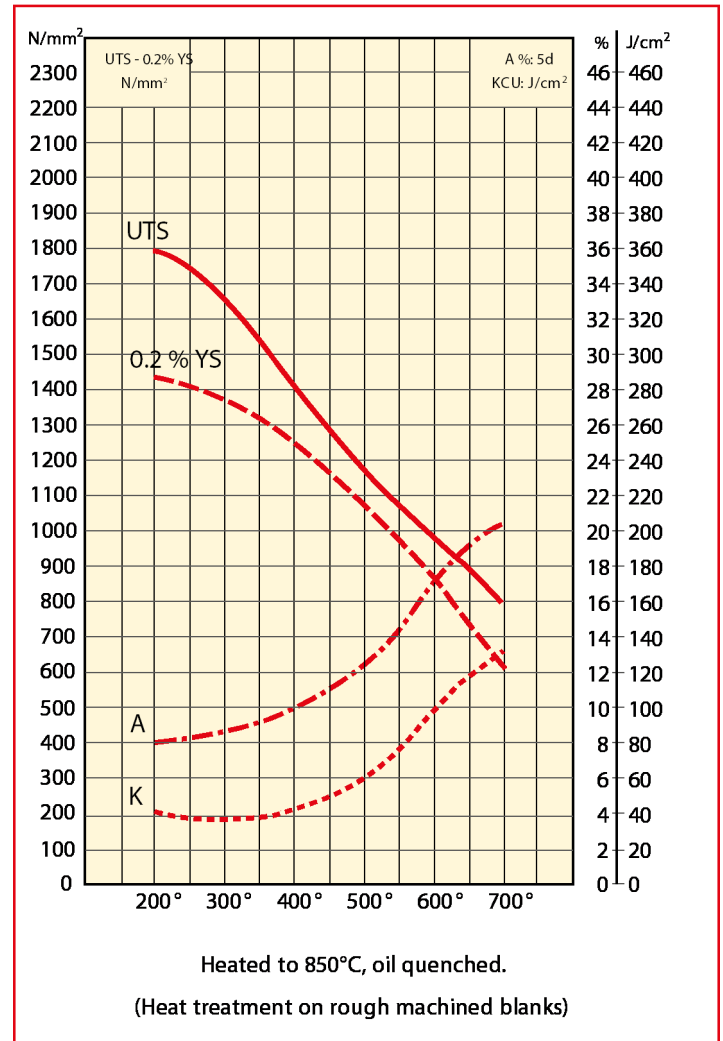
HEAT TREATMENT

- Harden:
 - Heat to 850°C
 - Oil quench
- Temper:
 - Depending on properties required

PHYSICAL PROPERTIES

- Density: 7.8
- Mean coefficient of expansion in m/m.°C:
 - between 20°C and 100°C: 11.2×10^{-6}
 - between 20°C and 700°C: 14.1×10^{-6}
- Critical points:
 - Ac 1: 740°C
 - Ac 3: 800°C

TEMPERING CURVE



FORGING

- 1100/900°C

Contact:

www.aubertduval.com

The data provided in this document represent typical or average values rather than maximum or minimum guaranteed values. The applications indicated for the grades described are given as guidance only in order to help the reader in his personal assessment. Please note that these do not constitute a guarantee whether implicit or explicit as to whether the grade selected is suited to specific requirements. Aubert & Duval's liability shall not under any circumstances extend to product selection or to the consequences of that selection.