

SPECIFICATIONS

European Standards:

- 36NiCrMo16
- Numerical designation: 1.6773

AIR: 35 NCD 16

AMS: 6539

COMPOSITION

Carbon.....	0.35
Nickel.....	3.80
Chromium.....	1.70
Molybdenum.....	0.30

TYPICAL MECHANICAL PROPERTIES

- Annealed condition: heat to 680°C Slow cool
 - Brinell hardness: 269

HEAT TREATMENT REFERENCE

- Air cool from 875°C. Sub-zero treatment (-75°C).

Temper at 200°C.

- UTS:	1850 N/mm ²
- 0.2 % Yield strength:	1400 N/mm ²
- Elongation (5d):	8%
- Impact strength KCU:	40 J/cm ²

- Air cool from 875°C. Temper at 650°C

- UTS:	1000 N/mm ²
- 0.2 % Yield strength:	850 N/mm ²
- Elongation (5d):	19%
- Impact strength KCU:	130 J/cm ²

APPLICATIONS

- Large section mechanical parts or tooling of complex shape subjected to high stresses.

CHARACTERISTICS

- High level of hardenability
- Good dimensional stability
- Ideal where a high polish is required

HEAT TREATMENT

- Harden:

- Preheat to 600°C
- Heat to 875°C
- Air cool or gas pressure quench.

It is recommended that heating should take place in a neutral atmosphere.

- Temper:

- Depending on properties required

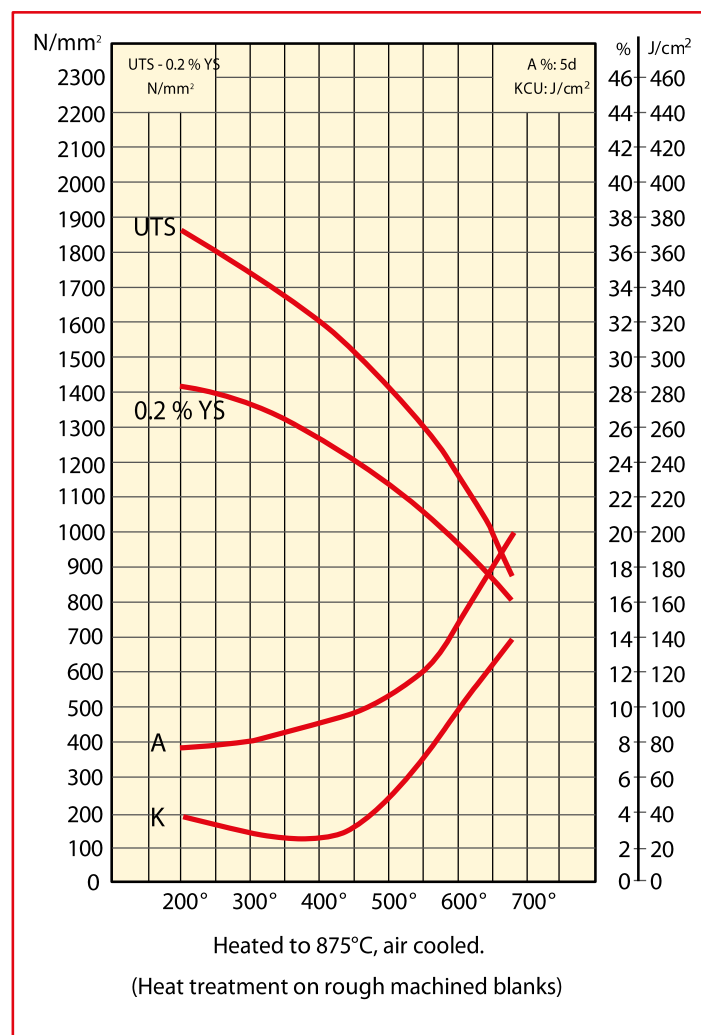
PHYSICAL PROPERTIES

- Density: 7,8
- Mean coefficient of expansion in m/m.°C:
 - between 20°C and 100°C: 11.4×10^{-6}
 - between 20°C and 700°C: 13.6×10^{-6}
- Critical points:
 - Ac 1: 670°C
 - Ac 3: 795°C

FORGING

- 1100/900°C

TEMPERING CURVE



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.