



Variant:

GK3W: Consumable electrode remelted grade

SPECIFICATIONS

European standards:

- 31CrMo12, 32CrMo12
- Numerical designation: 1.8515, 1.7361

AECMA:

- Designation: FE-PL1501, FE-PL48
- 30CrMo12

AIR : 30 CD 12

WL : 1.8564

MECHANICAL PROPERTIES

- Annealed condition: heat to 825 °C followed by slow cooling.
 - Brinell hardness: 205
- Oil quench from 900/925 °C. Temper at 625 °C.
 - UTS: 1000 N/mm²
 - 0.2 % Yield strength: 850 N/mm²
 - Elongation (5d): 18 %
 - Impact strength KCU: 150 J/cm²

COMPOSITION

Carbon	0.30
Chromium	3.00
Molybdenum.....	0.40

APPLICATIONS

- Gears.
- Spindles.
- Extruder screws.
- Machine tool components.
- Various mechanical parts.
- Rack and pinions.
- Shafts etc.

CHARACTERISTICS

- Nitriding steel exhibiting a relatively ductile nitrided layer, but with a lower surface hardness than the Aubert & Duval LK range of steels.

HEAT TREATMENT

- Harden:
 - Heat to 900/925 °C.
 - Oil quench.
- Temper:
 - Above 525 °C
 - depending on properties required.
- Nitriding:
 - Surface hardness: approx. 850 Vickers.

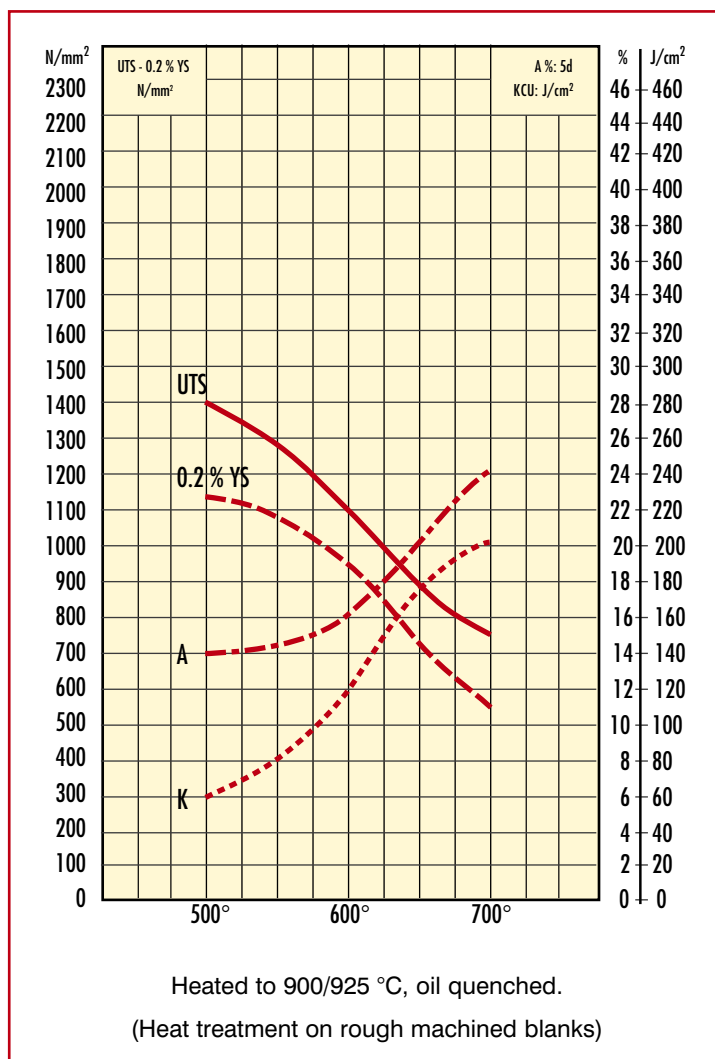
PHYSICAL PROPERTIES

- Density: 7.8
- Mean coefficient of expansion in m/m.°C:
 - between 20 °C and 100 °C: 11.3×10^{-6}
 - between 20 °C and 500 °C: 13.6×10^{-6}
- Critical points:
 - Ac 1: 780 °C
 - Ac 3: 835 °C

FORGING

- 1100/900 °C

TEMPERING CURVE



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