



SPECIFICATIONS

European standard:

EN	: X40CrMo15
AFNOR	: X40CrMo15 (former Z40CD15)
W.Nr	: ~ 1.2083
DIN	: ~ X40Cr14

PHYSICAL PROPERTIES

- Density: 7.7
- Mean coefficient of expansion in m/m.°C:
 - between 20°C and 100°C: 10.8×10^{-6}
 - between 20°C and 300°C: 11.0×10^{-6}
 - between 20°C and 500°C: 12.0×10^{-6}
- Critical points:
 - Ac 1: 820°C
 - Ac 3: 965°C

COMPOSITION

Carbon.....	0.40
Chromium.....	14.50
Molybdenum.....	0.30

APPLICATIONS

- Moulds for manufacturing of corrosive plastic materials where a high level of polish is required (optical polish, mirror polish).
- Mechanical parts subjected to corrosion and wear.

CHARACTERISTICS

- Good resistance to wear.
- Excellent resistance to various corrosive agents.
- Ideal where a high polish is required.

- Softened condition: the metal has an approximate Brinell hardness of 240.

HEAT TREATMENT

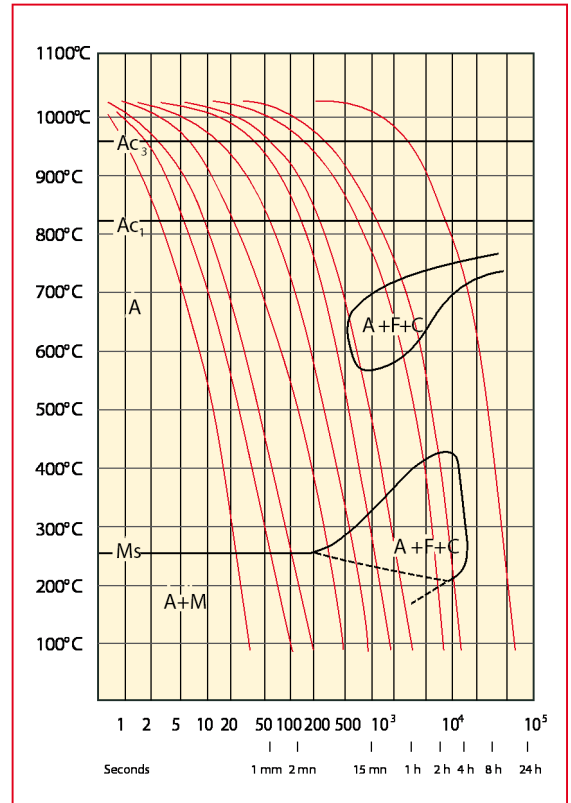
- **Harden:**

- Preheat at 750°C.
- Heat to 1030°C.
- Air cool or gas pressure quench.

Oil quenching possible depending on the shape.

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

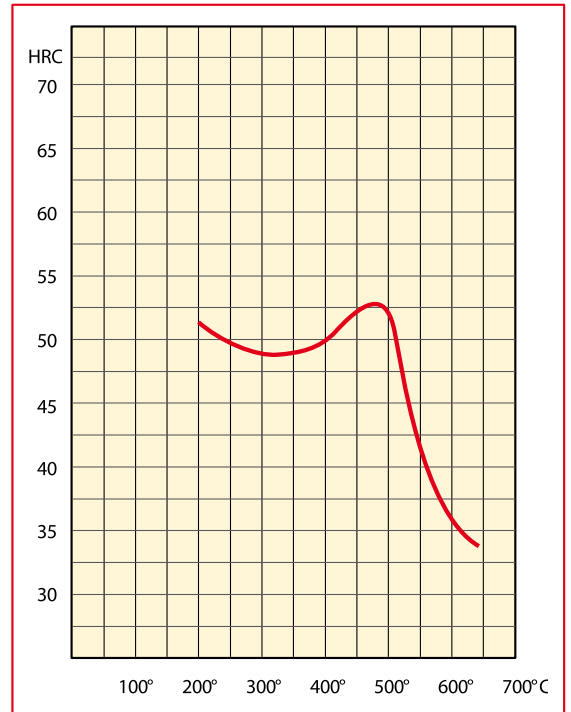
CCT DIAGRAM
Austenitization à 1030°C



- **Temper:**

- According to hardness required.

TEMPERING CURVE
Test on 1cm thick test coupon



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.