

Consumable electrode remelted steel

Variants:

RADYW: Vacuum induction melted and consumable electrode remelted steel

## SPECIFICATIONS

100Cr6  
WL : 1.3514  
BS : S 136  
UNS : G52986  
AISI : 52100

For the vacuum melted and remelted grade:

100Cr6  
UNS : G52986  
AISI : E52100

## COMPOSITION

|               |      |
|---------------|------|
| Carbon.....   | 1.00 |
| Chromium..... | 1.50 |

## APPLICATIONS

- Ball, roller or needle roller bearings
- Bearing races
- Thrust bearings
- Cams
- Rollers
- Etc.

## TYPICAL MECHANICAL PROPERTIES

- Annealed condition: heat to 760°780°C followed by slow cooling.

- Brinell hardness: 195

### HEAT TREATMENT REFERENCE

- Heating at 830°C followed by oil quench. Temper at 160°C.
- Hardness: HRC 61

## CHARACTERISTICS

- Good resistance to wear and indentation

## HEAT TREATMENT

- Harden:
  - Heat to 835°C.
  - Oil quench.
- Temper:
  - Depending Should be carried out immediately after quenching at a temperature between 130°C and 300°C depending on the application envisaged.

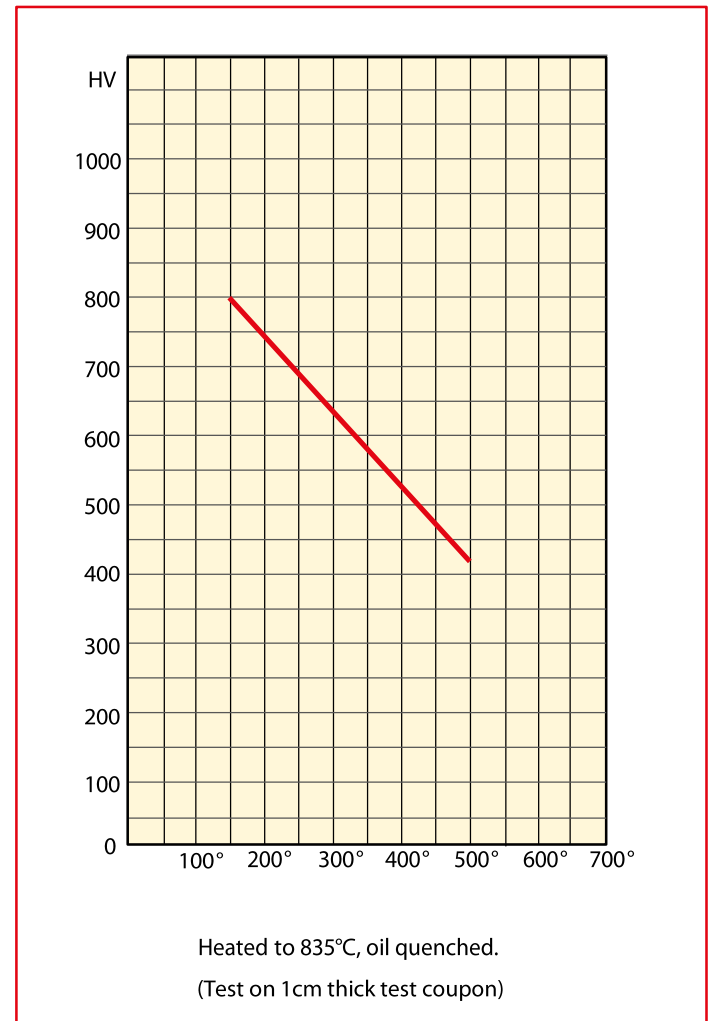
## PHYSICAL PROPERTIES

- Density: 7.8
- Mean coefficient of expansion in m/m.°C:
  - between 20°C and 100°C:  $11.4 \times 10^{-6}$
  - between 20°C and 700°C:  $14.7 \times 10^{-6}$
- Critical points:
  - Ac 1: 745°C
  - Ac 3: 770°C

## FORGING

- 1050/900°C

## TEMPERING CURVE



Contact:

[www.aubertduval.com](http://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.