



STANDARD

CLASSIFICATION

FEATURES

UNI EN ISO 683-1: 2018

C35E - Nr. 1.1181

Steel rods, bars and wire for cold heading and cold extrusion - steels for quenching and tempering

Alloy special steel

Cr, Cr-B

CHEMICAL ANALYSIS

| C | Si | Mn | P | S | Cr | Other |
|-------------------|-------------------|-------------------|-----------|-----------|----------|-------------------|
| from 0,32 to 0,39 | from 0,10 to 0,40 | from 0,50 to 0,80 | 0,025 max | 0,035 max | 0,40 max | Cr+Mo+Ni = < 0,63 |
| Mo | Ni | B | Cu | Al | Pb | |
| 0,10 max | 0,40 max | - | 0,30 max | - | - | |

MECHANICAL PROPERTIES

| Diameter | | As Hot Rolled (+U) or Rolled and peeled (+U +PE) | | Annealed (+AC) or Annealed + Peeled (+AC +PE) | | Cold Drawn (+U +C) | | Cold Drawn and Annealed (+U +C +AC) | | Cold Drawn then Annealed and Skin passed (+U +C +AC + LC) | | Annealed and Cold Drawn (+AC +C) | |
|----------|-----|--|-----------|---|-----------|--------------------|-----------|-------------------------------------|-----------|---|-----------|----------------------------------|-----------|
| from | to | Rm (Mpa) max | Z (%) min | Rm (Mpa) max | Z (%) min | Rm (Mpa) max | Z (%) min | Rm (Mpa) max | Z (%) min | Rm (Mpa) max | Z (%) min | Rm (Mpa) max | Z (%) min |
| 2 | 16 | - | - | 550 | 18 | - | - | - | - | - | - | - | - |
| 16 | 100 | - | - | 520 | 19 | - | - | - | - | - | - | - | - |

In case of specific needs, contact our sales offices to evaluate feasibility and agree on the values of Rm.

EQUIVALENT STEEL GRADES

| EUROPE (EN) | GERMANY (DIN, WNr) | FRANCE (AFNOR) | ITALY (UNI) | CHINA (GB) | FINLAND (SFS) | INTERN (ISO) |
|-------------|--------------------|----------------|-------------|-------------|---------------|--------------|
| C35E | CK35 | XC38H1 | C35 | 35 | C35 | C35E4 |
| USA (SAE) | JAPAN (JIS) | UK (BS) | SPAIN (UNE) | SWEDEN (SS) | RUSSIA (GOST) | |
| 1034 | S35C | 080M36 | F.1130 | 1572 | 35 | |

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