

| | |
|-----------------------|---------------------|
| Quality | 42CrMo4 |
| According to Standard | EN 10083-3:2006 (E) |
| Number | 1.7225 |



| Comparable Standards | EN | W.N. | AISI |
|----------------------|---------|--------|------|
| | 42CrMo4 | 1.7225 | 4140 |

| Chemical Analysis | C % | Si % max | Mn % | P% max | S% max. | Cr % |
|-------------------|--------------|----------|--------------|--------|---------|--------------|
| | 0.38 to 0.45 | 0.40 | 0.60 to 0.90 | 0.025 | 0.035 | 0.90 to 1.20 |
| | Mo % | Ni % | V | B | | |
| | 0.15 to 0.30 | — | — | — | | |

Hot Work and Heat Treatment Temperatures

| Quenching ^{c,d} | Quenching ^e | Tempering ^f | End Quench Test |
|--------------------------|------------------------|------------------------|-----------------|
| °C | agent | °C | °C |
| 820 to 800 | Oil or Water | 540 to 680 | 850 ± 5 |

Mechanical Properties at Room Temperature

Mechanical Properties for the ruling section (see EN 10083-1:2006, Annex A) with a diameter) d) or for flat products thickness (f) of

| | Re min. MPa ^c | R _m | A min. % | Z min. % | KV ^b min. J |
|--|-----------------------------|----------------|-------------|-------------|---------------------------|
| d ≤ 16 mm t ≤ 8 mm | 900 | 1100 to 1300 | 10 | 40 | — |
| 16 mm < d ≤ 40 mm 8 mm < t ≤ 20 mm | 750 | 1000 to 1200 | 11 | 45 | 35 |
| 40 mm < d ≤ 100 mm 20 mm < t ≤ 60 mm | 650 | 900 to 1100 | 12 | 50 | 35 |
| 100 mm < d ≤ 160 mm 60 mm < t ≤ 100 mm | 550 | 800 to 950 | 13 | 50 | 35 |
| 160 mm < d ≤ 250 mm 100 mm < t ≤ 160 mm | 500 | 750 to 900 | 14 | 55 | 35 |