

|                       |                     |
|-----------------------|---------------------|
| Quality               | 34CrNiMo6           |
| According to Standard | EN 10083-3:2006 (E) |
| Number                | 1.6582              |



| Comparable Standards | EN        | W.N.   | AISI |
|----------------------|-----------|--------|------|
|                      | 34CrNiMo6 | 1.6582 | 4340 |

| Chemical Analysis | C %          | Si % max     | Mn %         | P% max | S% max. | Cr %         |
|-------------------|--------------|--------------|--------------|--------|---------|--------------|
|                   | 0.30 to 0.38 | 0.40         | 0.50 to 0.80 | 0.025  | 0.035   | 1.30 to 1.70 |
|                   | Mo %         | Ni %         | V            | B      |         |              |
|                   | 0.15 to 0.30 | 1.30 to 1.70 | —            | —      |         |              |

#### Hot Work and Heat Treatment Temperatures

| Quenching <sup>c,d</sup> | Quenching <sup>e</sup> | Tempering <sup>f</sup> | End Quench Test |
|--------------------------|------------------------|------------------------|-----------------|
| °C                       | agent                  | °C                     | °C              |
| 830 to 860               | Oil or Water           | 540 to 660             | 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.<br>MPa <sup>c</sup> | R <sub>m</sub> | A min.<br>% | Z min.<br>% | KV <sup>b</sup> min.<br>J |
|--|-----------------------------|----------------|-------------|-------------|---------------------------|
| d ≤ 16 mm<br>t ≤ 8 mm                      | 1000                        | 1200 to 1400   | 9           | 40          | —                         |
| 16 mm < d ≤ 40 mm<br>8 mm < t ≤ 20 mm      | 900                         | 1100 to 1300   | 10          | 45          | 45                        |
| 40 mm < d ≤ 100 mm<br>20 mm < t ≤ 60 mm    | 800                         | 1000 to 1200   | 11          | 50          | 45                        |
| 100 mm < d ≤ 160 mm<br>60 mm < t ≤ 100 mm  | 700                         | 900 to 1100    | 12          | 55          | 45                        |
| 160 mm < d ≤ 250 mm<br>100 mm < t ≤ 160 mm | 600                         | 800 to 950     | 13          | 55          | 45                        |