

Material No.: Code:

**1.6582 34CrNiMo6****Chemical composition:**  
(Typical analysis in %)

C	Cr	Mo	Ni				
0,34	1,50	0,25	1,50				

**Steel properties:**

CrNiMo-alloyed steel, supplied in quenched and tempered condition.

**Applications:**

Heavily loaded parts for mechanical engineering and motor construction.

**Condition of delivery:**

Quenched and tempered

**Physical properties:**

Thermal expansion coefficient

$\left[ \frac{10^{-6} \cdot \text{m}}{\text{m} \cdot \text{K}} \right]$	20-100°C	20-200°C	20-300°C	20-400°C
	12,1	12,7	13,2	13,6

Thermal conductivity

$\left[ \frac{\text{W}}{\text{m} \cdot \text{K}} \right]$	20°C
	33,7

**Heat treatment:**

Soft annealing

Temperature	Cooling	Hardness
650 - 680°C	furnace	max. 248 HB

Hardening

Temperature	Cooling	Tempering
830 - 860°C	oil	see tempering diagram

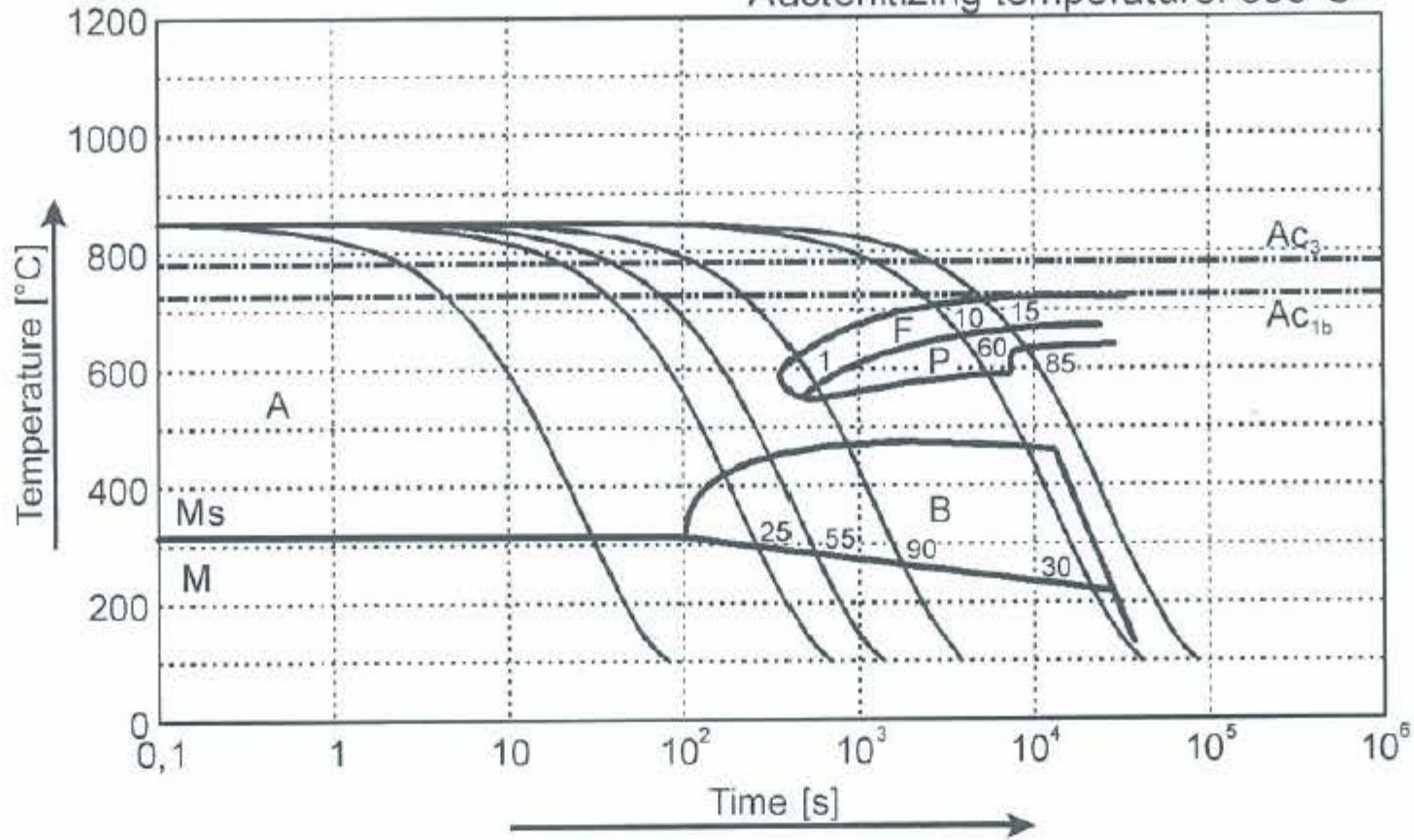
**Mechanical properties in quenched and tempered condition (DIN EN 10083-1, 10/96)**

Diameter d [mm]	< 16	>16 - 40	>40 - 100	>100 - 160	>160 - 250
Thickness t [mm]	< 8	8<t<20	20<t<60	60<t<100	100<t<160
Yield strength Re [N/mm <sup>2</sup> ]	min. 1000	min. 900	min. 800	min. 700	min. 600
Tensile strength Rm [N/mm <sup>2</sup> ]	1200 - 1400	1100 - 1300	1000 - 1200	900 - 1100	800 - 950
Elongation A [%]	min. 9	min. 10	min. 11	min. 12	min. 13
Reduction of area Z [%]	min. 40	min. 45	min. 50	min. 55	min. 55
Toughness CVN [J]	min. 35	min. 45	min. 45	min. 45	min. 45



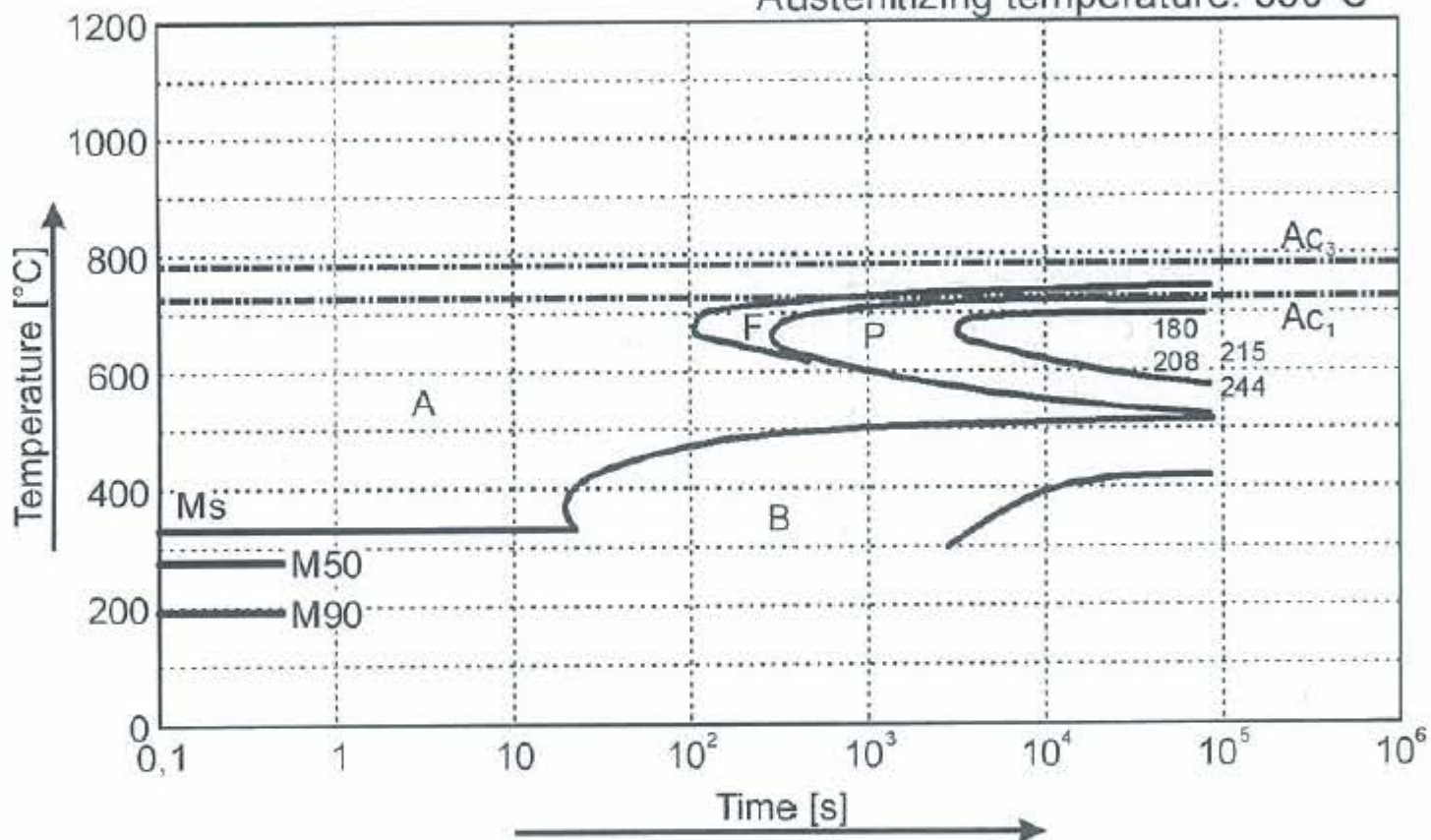
### (1.6582) Continuous Cooling Transformation Diagram (CCT)

Austenitizing temperature: 850°C

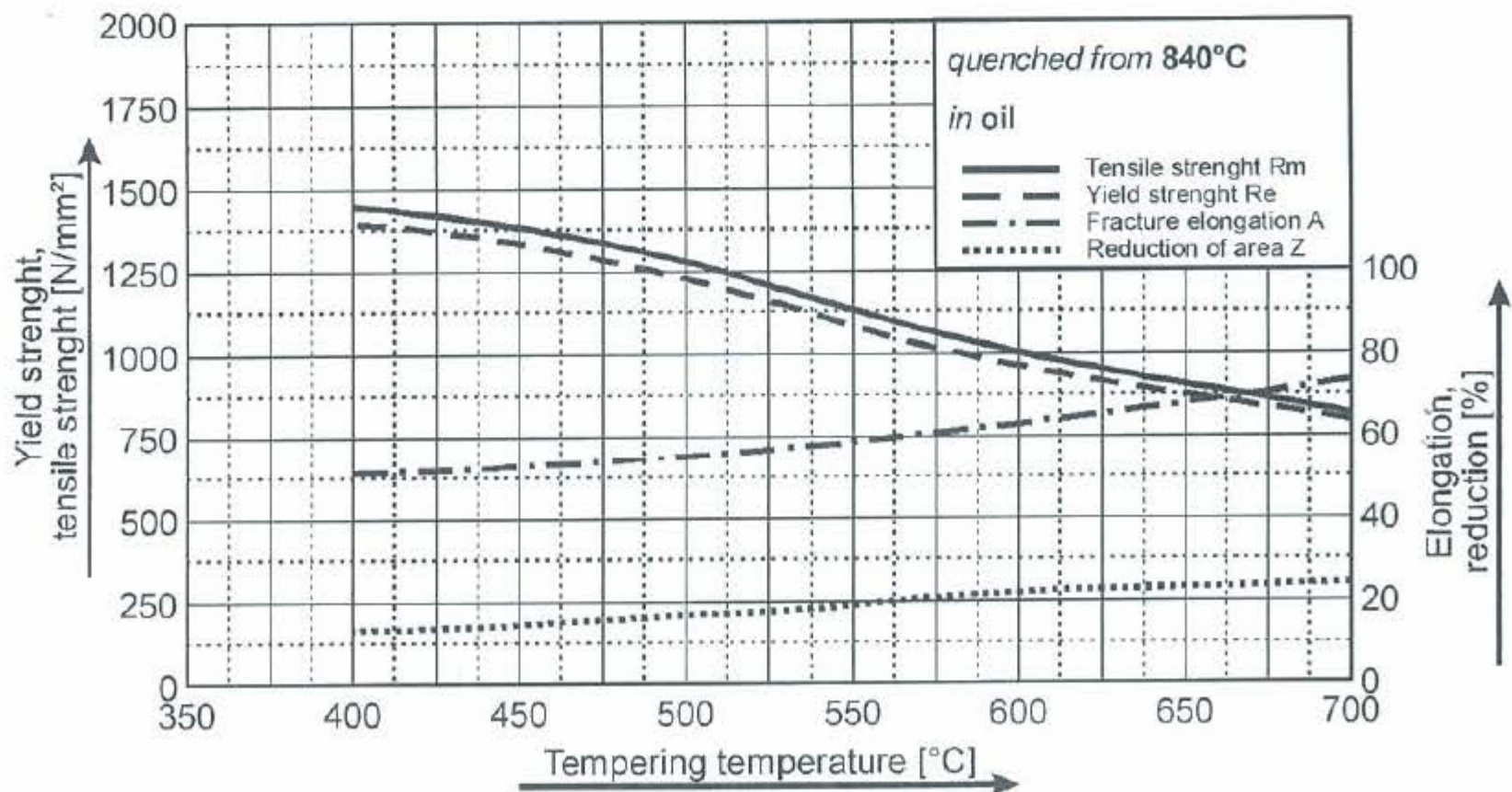


### Time Temperature Transformation Diagram (TTT)

Austenitizing temperature: 850°C



### Tempering Diagram



Remarks: All technical information is for reference only.