

Material No.: Code:  
**1.2358 60CrMoV18-5**

DE - Brand:  
**AMO**

**Chemical composition:**  
 (Typical analysis in %)

C	Cr	Mo	V				
0,60	4,50	0,50	0,20				

**Steel properties:**

Medium alloyed cold work steel that is usually supplied quenched and tempered, high hardening capacity, through hardenability and toughness, good weldability, excellent surface hardenability.

**Applications:**

Cutting inserts for segmented tool, punching tools, shear knives, plastic moulds, cutting tools.

**Condition of delivery:**

- a) Quenched and tempered, 850 - 1000 N/mm<sup>2</sup>
- b) Soft annealed to max. 240 HB

**Physical properties:**

Thermal expansion coefficient	$\left[ \frac{10^{-6} \text{ m}}{\text{m K}} \right]$	20-100°C	20-200°C	20-300°C	20-400°C
		11,5	11,8	12,4	12,8
Thermal conductivity	$\left[ \frac{\text{W}}{\text{m K}} \right]$	20°C	350°C	700°C	
		19,4	24,6	26,3	

**Heat treatment:**

Soft annealing

Temperature	Cooling	Hardness
820 - 860°C	furnace	max. 240 HB

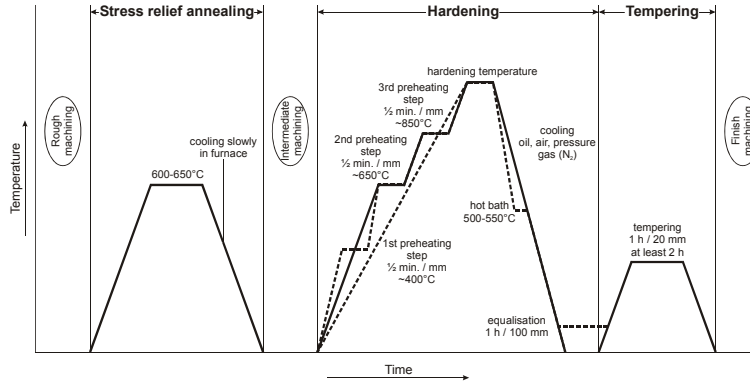
Stress relief annealing

Temperature	Cooling	
600 - 650°C	furnace	

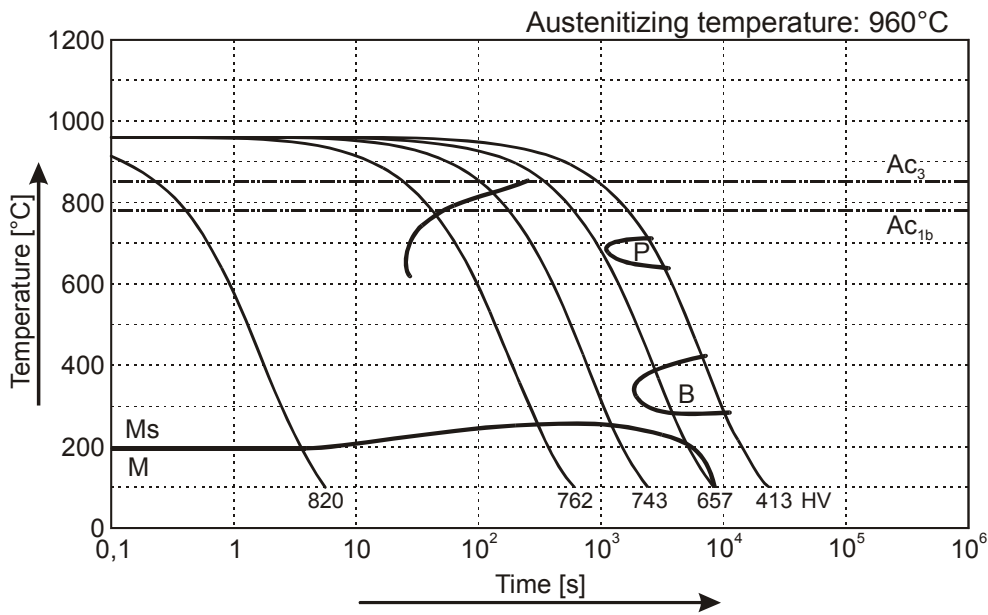
Hardening

Temperature	Cooling	Tempering
950 - 980°C	oil, pressure gas (N <sub>2</sub> ), air or hot bath 500 - 550°C	see tempering diagram

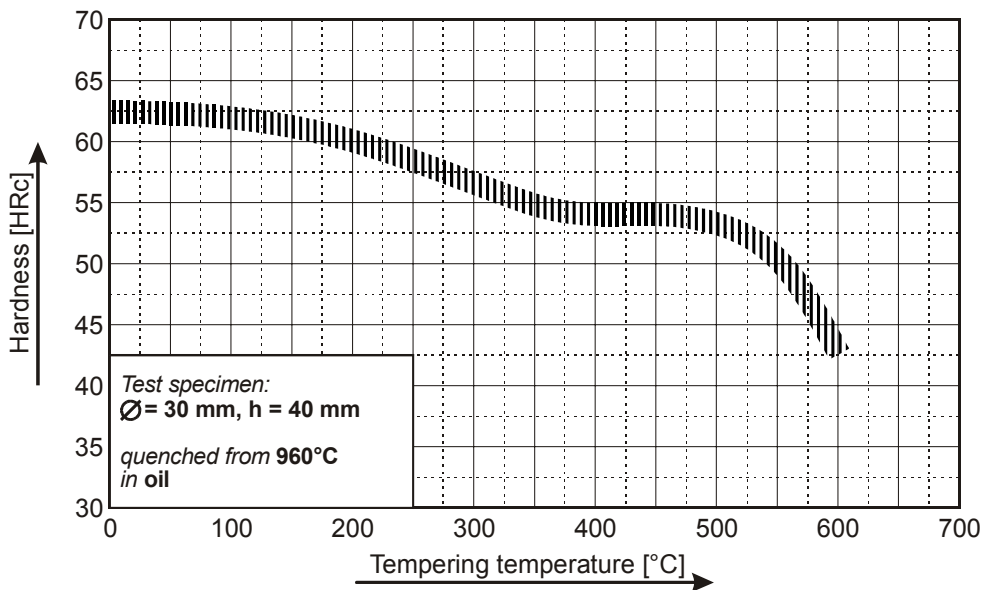
# (1.2358) Thermal Cycle Diagram



## Continuous Cooling Transformation Diagram (CCT)



## Tempering Diagram



Remarks: All technical information is for reference only.