

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/mm²
- 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

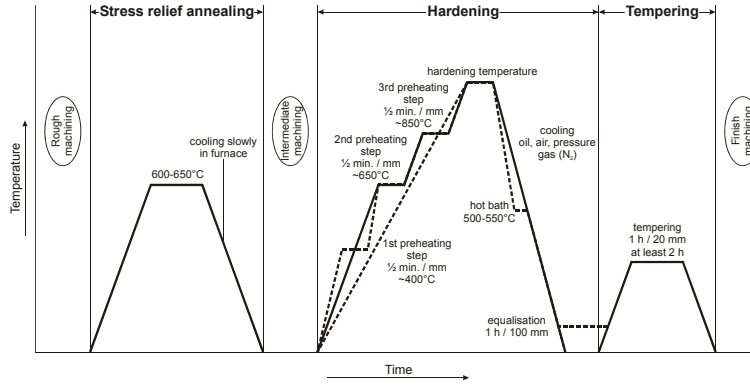
Stress relief annealing

Temperature	Cooling	
600 - 650°C	furnace	

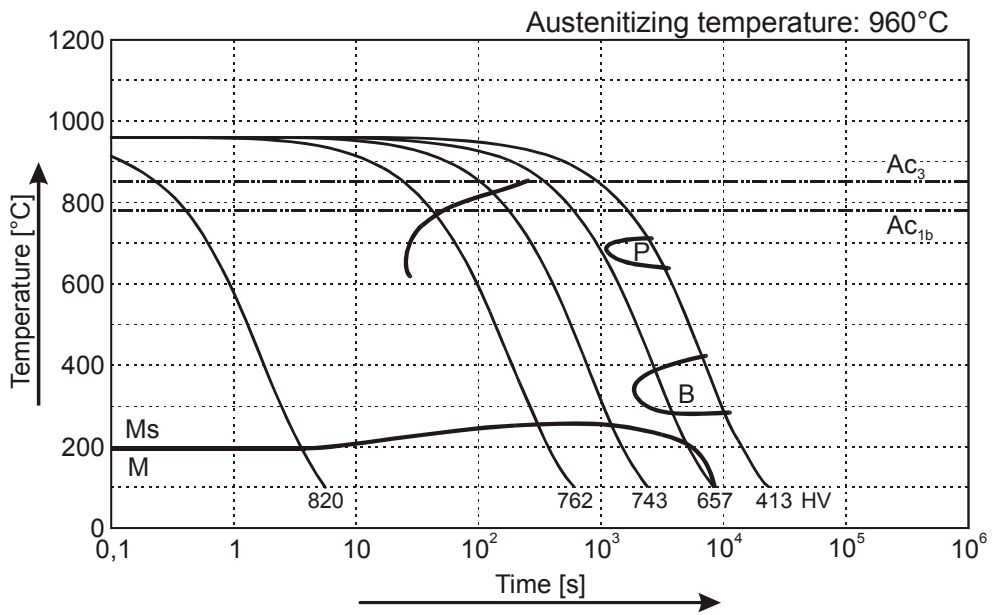
Hardening

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

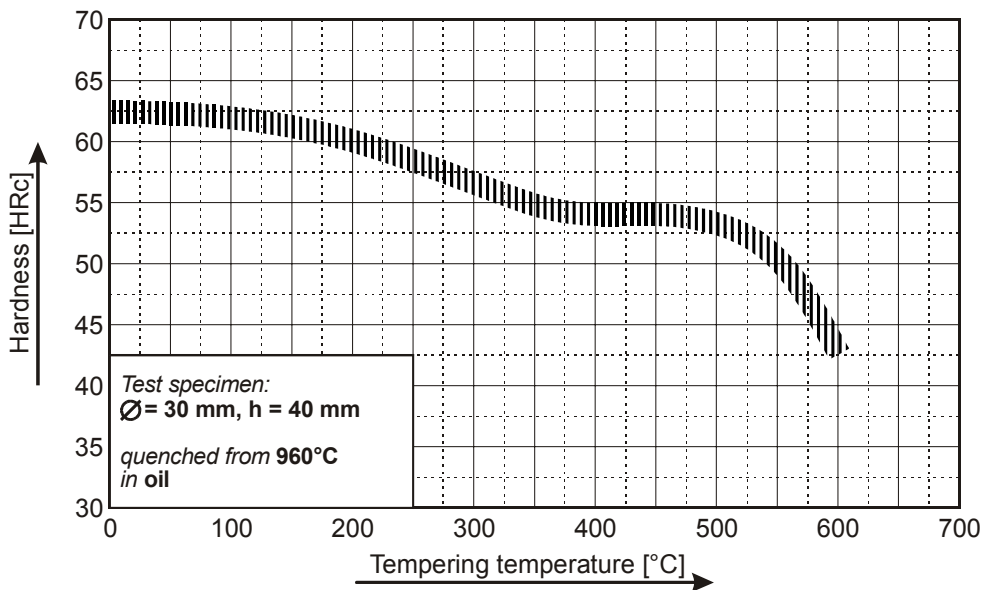
(1.2358) Thermal Cycle Diagram



Continuous Cooling Transformation Diagram (CCT)



Tempering Diagram



Remarks: All technical information is for reference only.