

DE - Brand:

Special Steel

CPV4

Chemical composition:

(Typical analysis in %)

C	Cr	Mo	V				
2,10	12,00	0,80	3,80				

Steel properties:

Ledeburitic 12% chrome steel, with additional vanadium, carbide rich, very high wear resistance, good dimensional stability.

Applications:

Cutting tools requiring high wear resistance, deep drawing dies, press tools for stone processing.

Condition of delivery:

Soft annealed to max. 260 HB

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
		10,6	11,2	11,7	12,1
Thermal conductivity	$\left[\frac{\text{W}}{\text{m} \cdot \text{K}} \right]$	20°C	350°C	700°C	
		31,2	29,1	27,6	

Heat treatment:

Soft annealing

Temperature	Cooling	Hardness
830 - 860°C	furnace	max. 260 HB

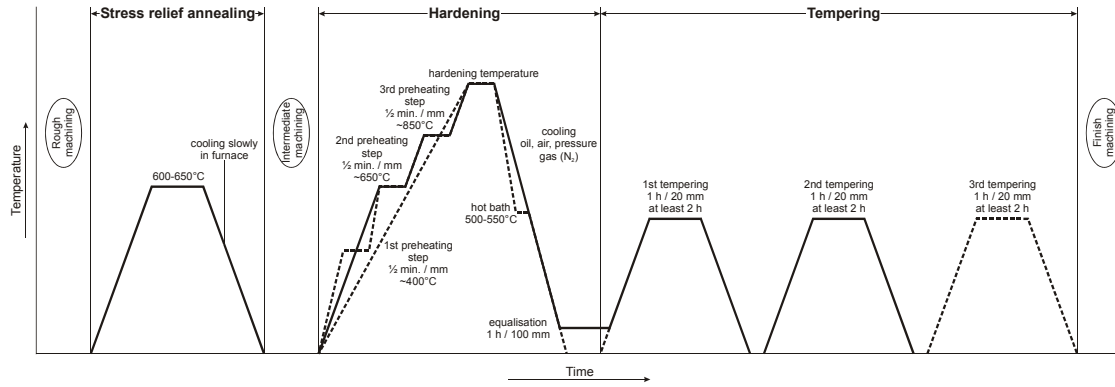
Stress relief annealing

Temperature	Cooling	
600 - 650°C	furnace	

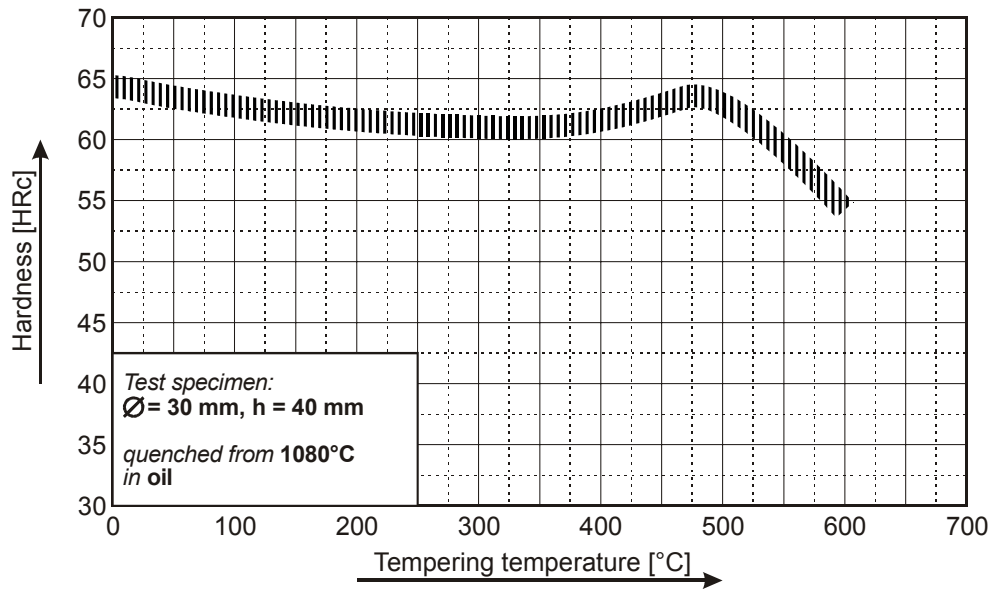
Hardening

Temperature	Cooling	Tempering
1050 - 1130°C	oil, pressure gas (N ₂), air or hot bath 500 - 550°C	see tempering diagram

(CPV4) Thermal Cycle Diagram



Tempering Diagram



Remarks: All technical information is for reference only.