

Special Steel

DE - Brand:

CP8E

Chemical composition:
(Typical analysis in %)

C	Cr	Mo	V				
0,85	7,70	1,50	2,30				

Steel properties:

Cold work tool steel with high V-content, good secondary and through hardenability, good toughness, dimensionally stable.

Applications:

Shear knives, cutting tools, straightening-, pressure- and profiling rolls with high toughness requirements.

Condition of delivery:

Soft annealed to max. 240 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
		11,3	11,7	12,0	12,2
Thermal conductivity	$\left[\frac{\text{W}}{\text{m} \cdot \text{K}} \right]$	20°C			
		24,8			

Heat treatment:

Soft annealing

Temperature	Cooling	Hardness
800 - 840°C	furnace	max. 240 HB

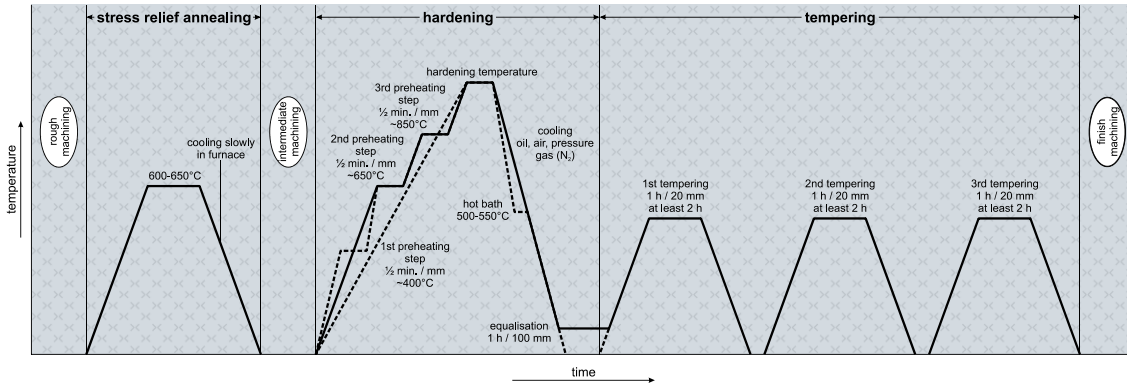
Stress relief annealing

Temperature	Cooling	
600 - 650°C	furnace	

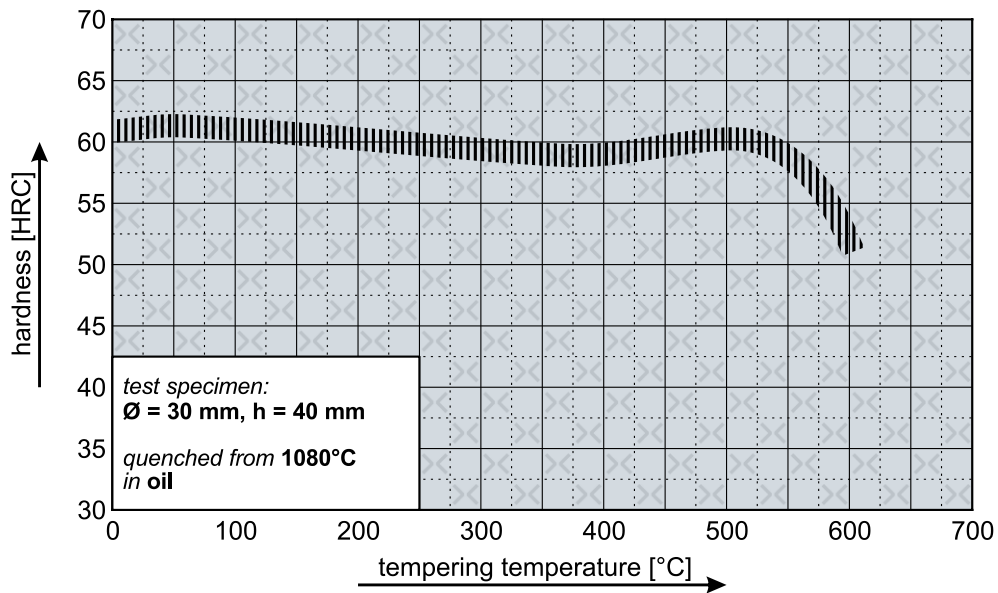
Hardening

Temperature	Cooling	Tempering
1070 - 1090°C	oil, pressure gas (N ₂), air or hot bath 500 - 550°C	see tempering diagram

(CP8E) Thermal Cycle Diagram



Tempering Diagram



Remarks: All technical information is for reference only.