

DE - Brand:

Special Steel

CPOH

Chemical composition

(Typical analysis in %)

C	Cr	Mo	V	others		
1,00	8,00	2,50	0,30	+		

Steel properties

Cold work tool steel with high molybdenum content, very good secondary hardening, good toughness, high compressive strength, dimensionally stable.

Applications

Thread rolling dies and rolls, cutting tools, forming rolls, shear knives, coining punches.

Condition of delivery

Soft annealed to max. 250 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
	11,0	11,3	11,9	12,2

Thermal conductivity

$\left[\frac{\text{W}}{\text{m} \cdot \text{K}} \right]$	20°C
	24,9

Heat treatment

Soft annealing

Temperature	Cooling	Hardness
820 - 860°C	furnace	max. 250 HB

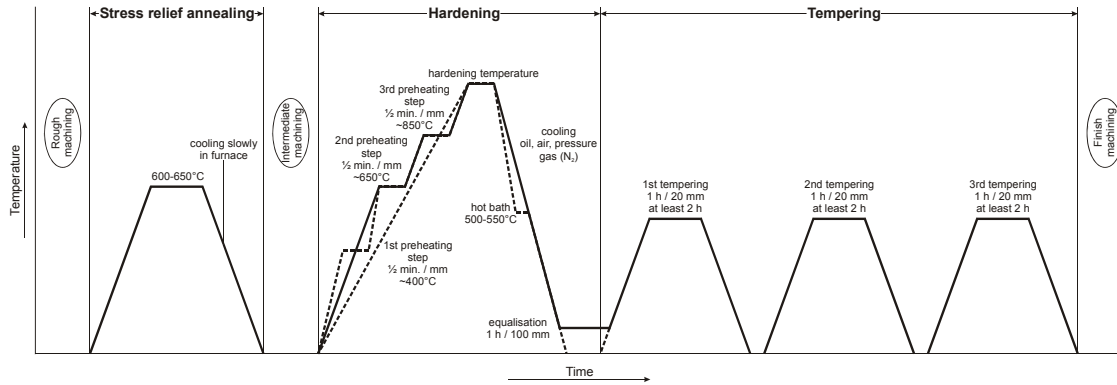
Stress relief annealing

Temperature	Cooling	
600 - 650°C	furnace	

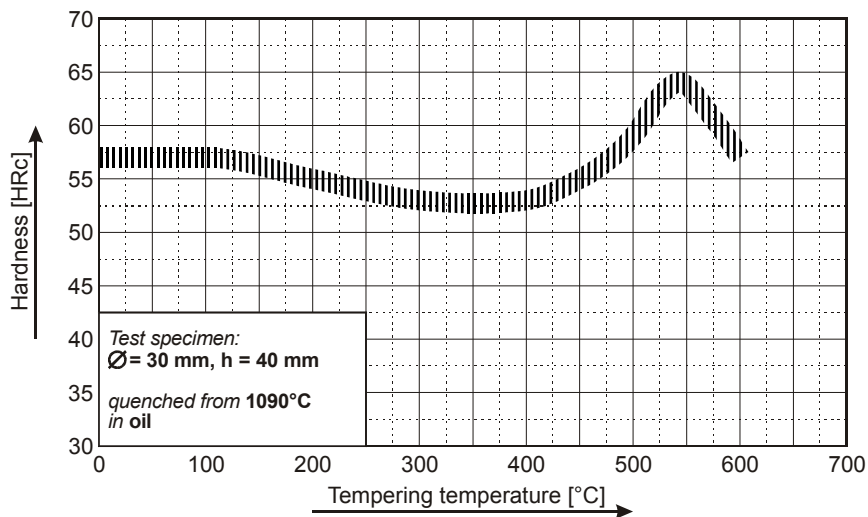
Hardening

Temperature	Cooling	Tempering
1040 - 1100°C	oil, pressure gas (N ₂), air or hot bath 500 - 550°C	see tempering diagram

(CPOH) Thermal Cycle Diagram



Tempering Diagram



Remarks: All technical information is for reference only.