

Material No.: Code: **1.2436 X210CrW12**

DE - Brand: **CPW**

Chemical composition:
(Typical analysis in %)

C	Cr	W					
2,10	12,00	0,80					

Steel properties:

Ledeburitic 12% chrome steel, excellent wear resistance due to the high volume of hard carbides in the steel matrix, high surface hardness after heat treatment, medium toughness, dimensionally stable, high compressive strength, not secondary hardenable. Similar to AISI D6.

Applications:

Cutting and drawing tools for high wear resistance, rolls with high dimensional stability, deep drawing tools, tools for wire, bar and tube production, cold shear blades for thin sheets.

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	20-300°C	20-500°C	20-700°C
		10,9	12,3	13,0	13,2
Thermal conductivity	$\left[\frac{\text{W}}{\text{m} \cdot \text{K}} \right]$	20°C	350°C	700°C	
		16,7	20,5	24,2	

Heat treatment:

Soft annealing

Temperature	Cooling	Hardness
800 - 840°C	furnace	max. 250 HB

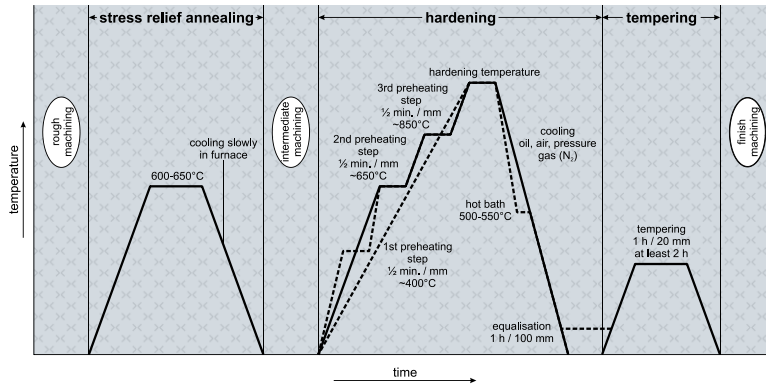
Stress relief annealing

Temperature	Cooling	
600 - 650°C	furnace	

Hardening

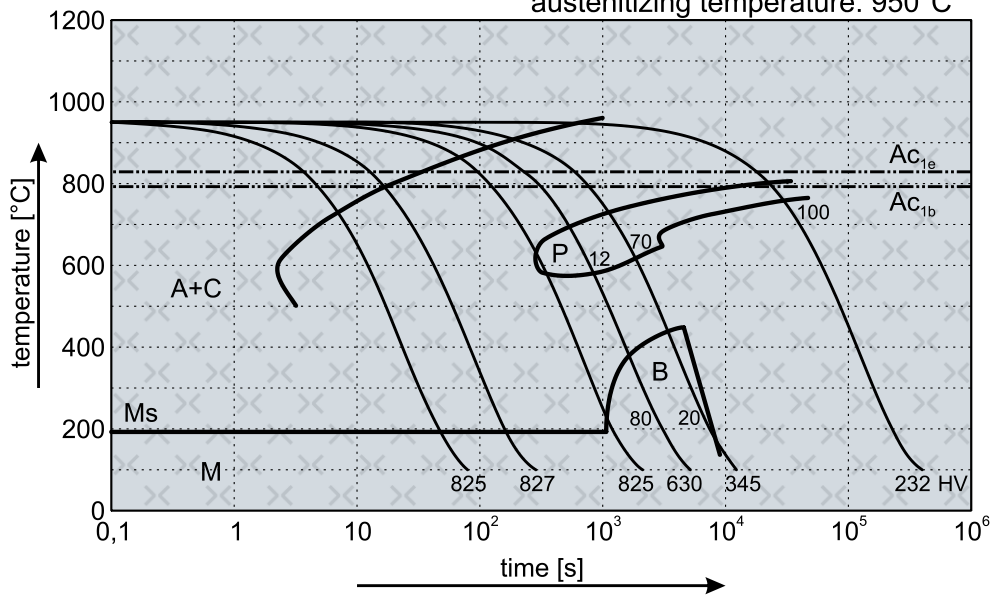
Temperature	Cooling	Tempering
960 - 980°C	oil, pressure gas (N ₂), air or hot bath 500 - 550°C	see tempering diagram

(1.2436) Thermal Cycle Diagram

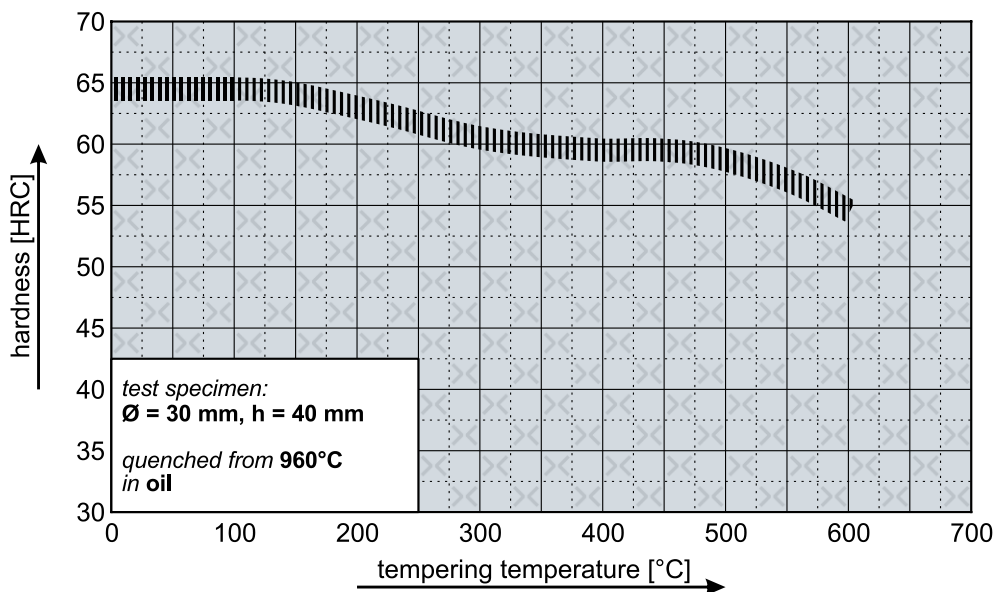


Continuous Cooling Transformation Diagram (CCT)

austenitizing temperature: 950°C



Tempering Diagram



Remarks: All technical information is for reference only.