

Material No.: Code:

1.2510 100MnCrW4

DE - Brand:

Z3C

Chemical composition

(Typical analysis in %)

C	Mn	Cr	W	V			
0,95	1,10	0,60	0,60	0,10			

Steel properties

Medium alloyed cold work steel with good hardening capacity, high wear resistances, dimensionally stable during heat treatment. Similar to AISI O1.

Applications

Cutting and punching tools, shear knives, thread rolling tools, measuring instruments.

Condition of delivery

Soft annealed to max. 230 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
	12,0	12,6	13,1	13,5

Thermal conductivity

$\left[\frac{\text{W}}{\text{m} \cdot \text{K}} \right]$	20°C	350°C
	33,4	32,1

Heat treatment

Soft annealing

Temperature	Cooling	Hardness
740 - 770°C	furnace	max. 230 HB

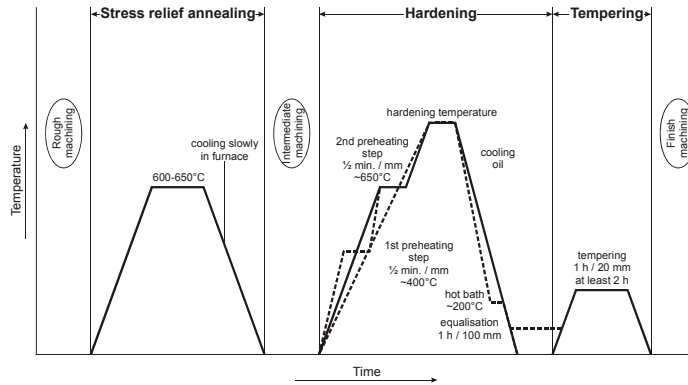
Stress relief annealing

Temperature	Cooling	
600 - 650°C	furnace	

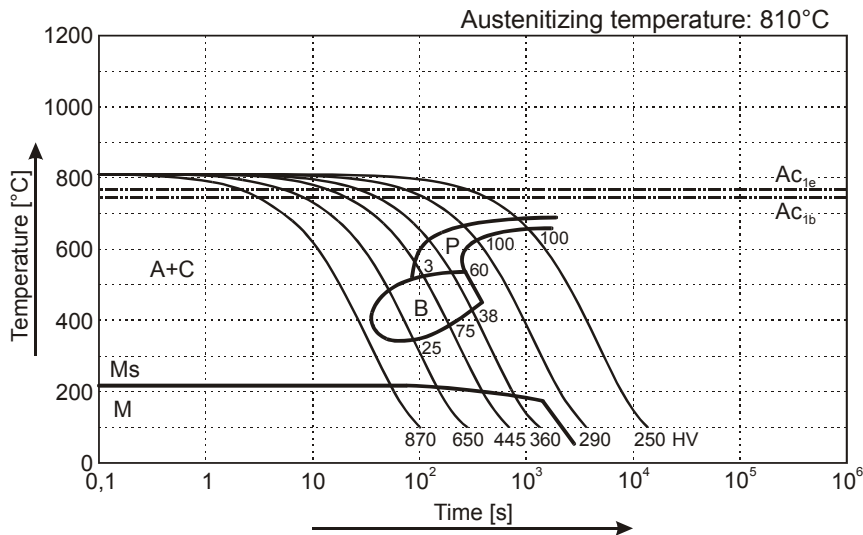
Hardening

Temperature	Cooling	Tempering
790 - 820°C	oil or hot bath 180 - 220°C	see tempering diagram

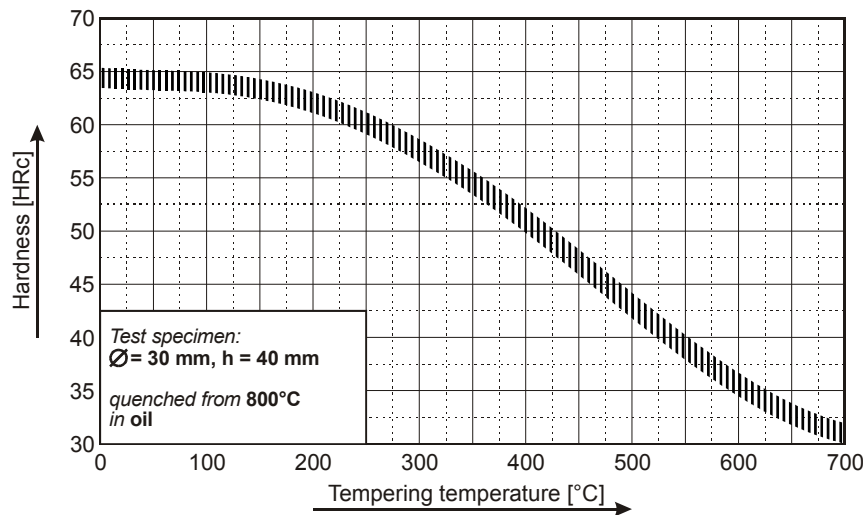
(1.2510) Thermal Cycle Diagram



Continuous Cooling Transformation Diagram (CCT)



Tempering Diagram



Remarks: All technical information is for reference only.