AKM TOOL AND HIGH-SPEED STEELS

Dörrenberg Edelstahl

Material No.: 1.2363 Code: X100CrMoV5

DE - Brand: P5M

Chemical composition

(Typical analysis in %)

C	Cr	Mo	V				
1,00	5,30	1,10	0,25				

Steel properties

Medium alloyed cold work steel with 1% Carbon, high achievable hardness, high through hardenability, good dimensional stability, excellent compressive strength, good toughness, high wear resistance.

Applications

Shear blades, cutting punching stamping, bending tools, form rolls, cold pilger mandrels, moulds for plastic processing, embossing dies.

Condition of delivery

Soft annealed to max. 241 HB

Physical properties

Thermal expansion coefficient

$\left[\frac{10^{-6}\cdot m}{m \cdot K}\right]$	20-100°C	20-200°C	20-300°C	20-400°C
	11,6	12,9	13,2	13,7

Thermal conductivity

$\left[\frac{W}{m \cdot K}\right]$	20°C	350°C	700°C
	15,8	26,7	28,9

Heat treatment

Soft annealing

Temperature	Cooling	Hardness
800 - 840°C	furnace	max. 241 HB

Stress relief annealing

Temperature	Cooling	
600 - 650°C	furnace	

Hardening

Temperature	Cooling	Tempering
950 - 980°C	oil, pressure gas (N_2), air or hot bath 500 - 550°C	see tempering diagram

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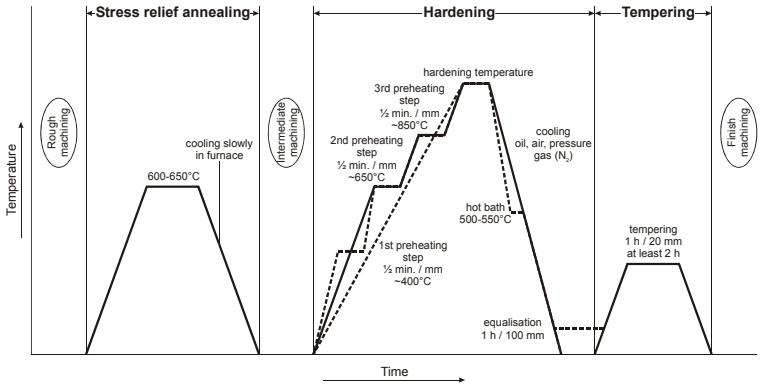
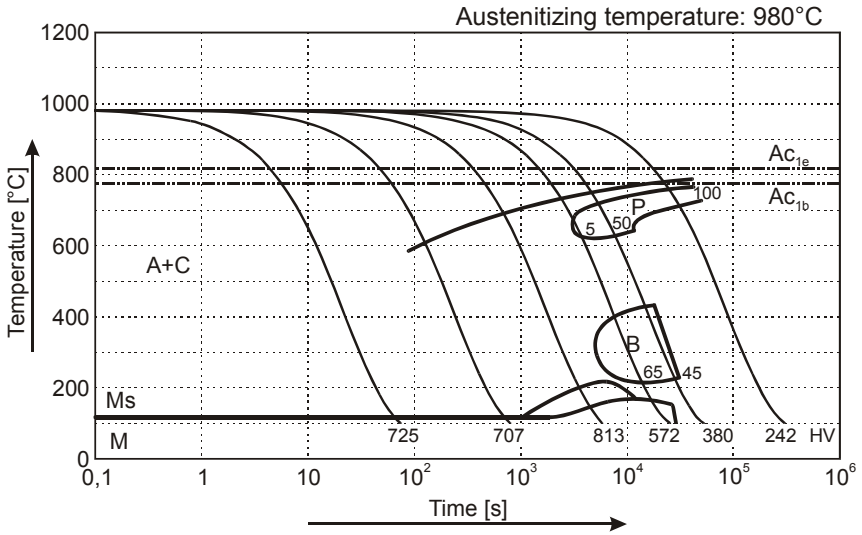
09/20

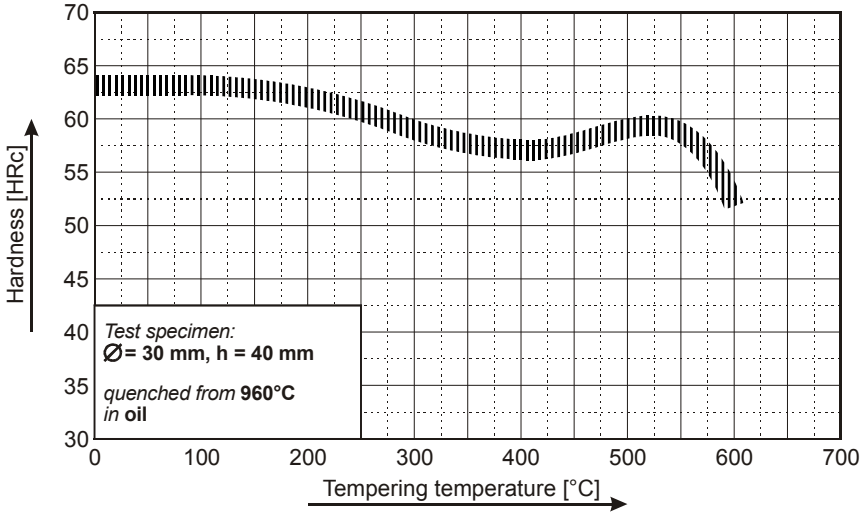
(1.2363) Thermal Cycle Diagram



Continuous Cooling Transformation Diagram (CCT)



Tempering Diagram



Remarks: All technical information is for reference only.