Doerrenberg

Material No.: 1.2343 Code: X37CrMoV5-1 DE - Brand: WP5

Chemical composition:
(Typical analysis in %)

C	Si	Cr	Mo	V			
0,37	1,00	5,30	1,30	0,40			

Steel properties:

Hot work steel with excellent toughness combined with high thermal stability, high resistance to thermal shocks, good thermal conductivity, limited water cooling possible. For toughest applications also available in EFS and ESR. Similar to AISI H11.

Applications:

Die casting tools, forging dies, extrusion tools, cylinders and screws for plastic processing, hot shear knives, hydro forming tools.

Condition of delivery:

Soft annealed to max. 229 HB

Physical properties:

Thermal expansion coefficient

$\left[\frac{10^{-6} \cdot m}{m \cdot K}\right]$	20-100°C	20-300°C	20-500°C	20-700°C
	11,4	12,4	13,1	13,3

Thermal conductivity

$\left[\frac{W}{m \cdot K}\right]$	20°C	350°C	700°C
	25,3	27,6	30,5

Heat treatment:

Soft annealing

Temperature	Cooling	Hardness
750 - 790°C	furnace	max. 229 HB

Stress relief annealing

Temperature	Cooling	
600 - 650°C	furnace	

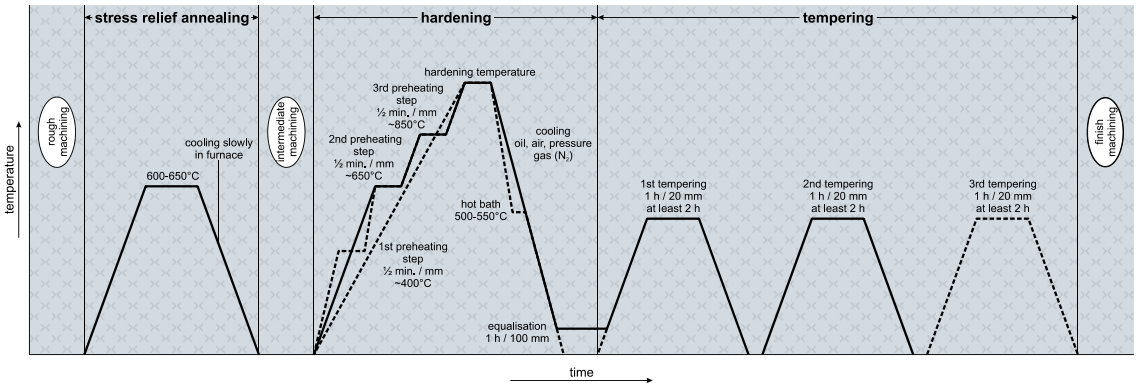
Hardening

Temperature	Cooling	Tempering
1000 - 1050°C	oil, pressure gas (N_2), air or hot bath 500 - 550°C	see tempering diagram

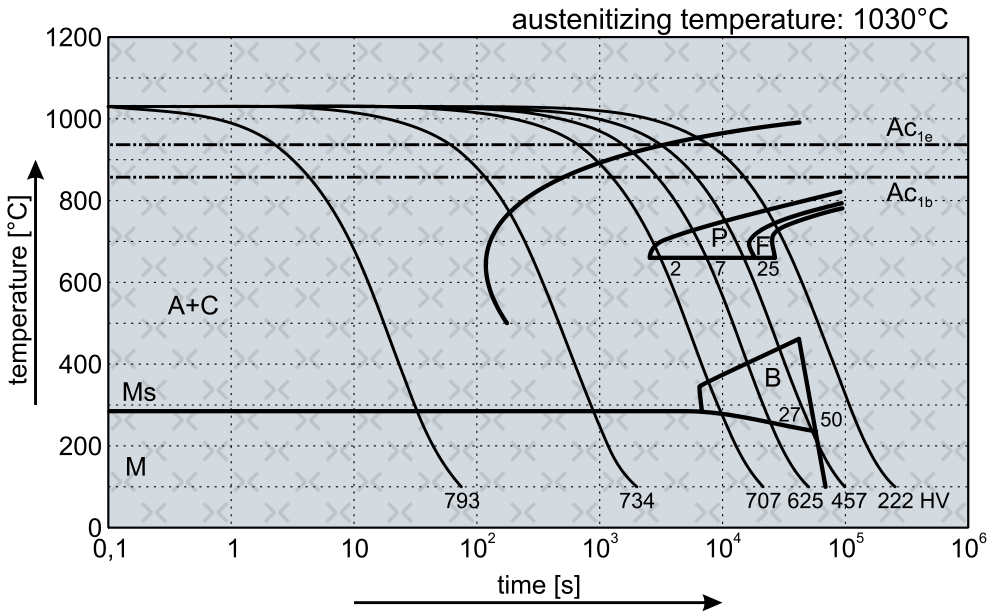
02/24

Dörrenberg Edelstahl GmbH · Hammerweg 7 · D-51766 Engelskirchen
Tel.: +49 22 63 / 79 1 · Fax: +49 22 63 / 79 20 5 · www.doerrenberg.de

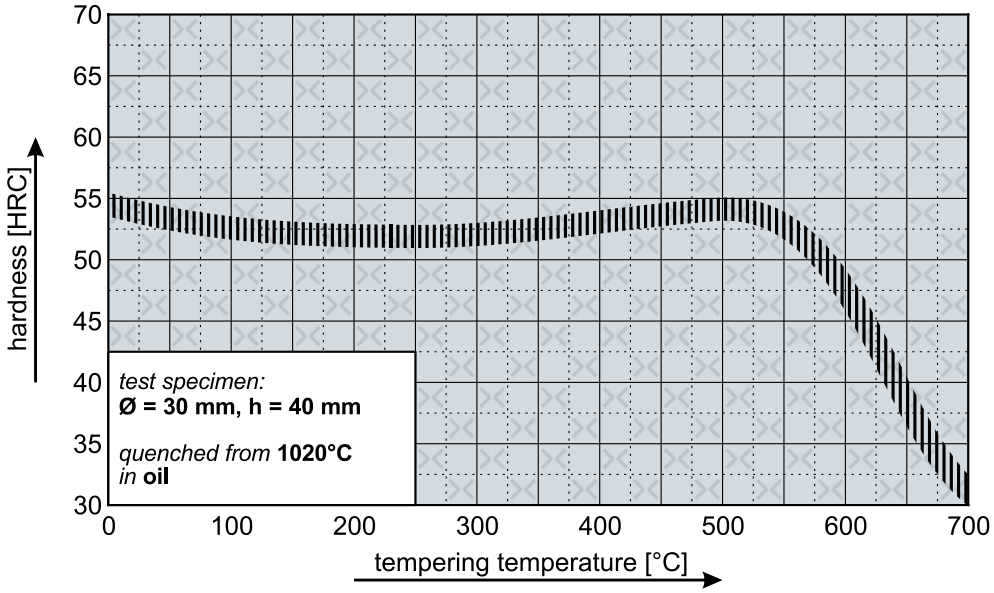
(1.2343) Thermal Cycle Diagram



Continuous Cooling Transformation Diagram (CCT)



Tempering Diagram



Remarks: All technical information is for reference only.