

Material No.: Code:  
**1.4125 X105CrMo17**

DE - Brand:  
**DE4125**

**Chemical composition:**  
 (Typical analysis in %)

C	Cr	Mo					
1,10	17,00	0,50					

**Steel properties:**

Stainless martensitic steel, good hardening capacity, high wear resistance. Similar to AISI 440C.

**Applications:**

Knives and cutting tools, punching discs, screw parts for plastic processing, ball bearings, surgical instruments.

**Condition of delivery:**

Soft annealed to max. 285 HB

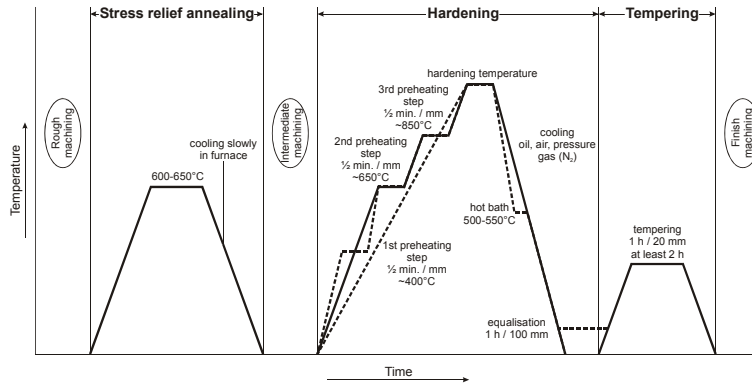
**Physical properties:**

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
		10,4	10,8	11,2	11,6
Thermal conductivity	$\left[ \frac{\text{W}}{\text{m} \cdot \text{K}} \right]$	20°C			
		15,5			

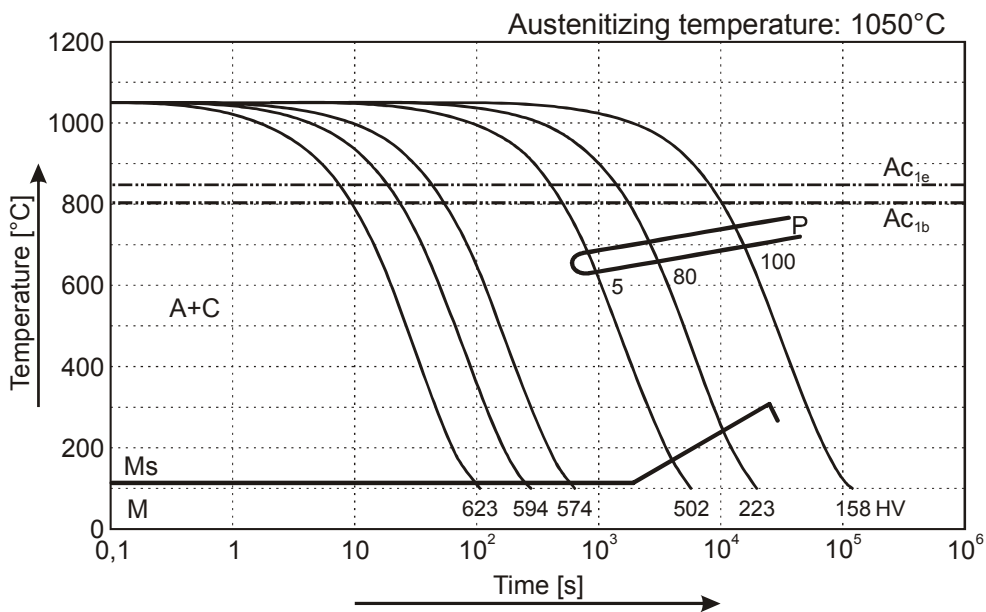
**Heat treatment:**

Soft annealing	<b>Temperature</b>	<b>Cooling</b>	<b>Hardness</b>
	780 - 840°C	furnace	max. 285 HB
Stress relief annealing	<b>Temperature</b>	<b>Cooling</b>	
	600 - 650°C	furnace	
Hardening	<b>Temperature</b>	<b>Cooling</b>	<b>Tempering</b>
	1000 - 1050°C	oil, pressure gas (N <sub>2</sub> ), air or hot bath 500 - 550°C	see tempering diagram

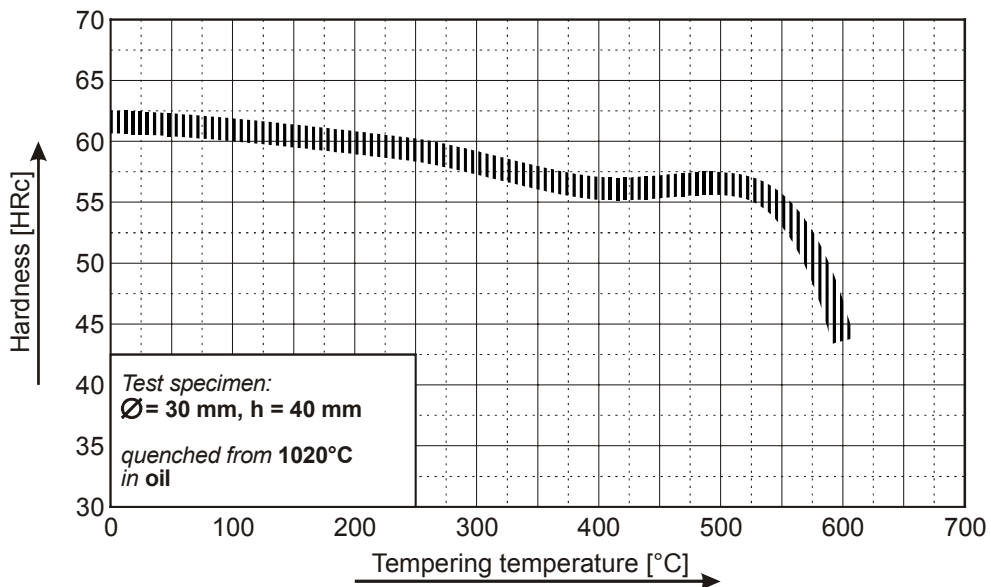
## (1.4125) Thermal Cycle Diagram



## Continuous Cooling Transformation Diagram (CCT)



## Tempering Diagram



Remarks: All technical information is for reference only.