

Material No.: Code:
1.4104 X14CrMoS17

DE - Brand:
R17WS

Chemical composition:
 (Typical analysis in %)

C	S	Cr	Mo				
0,14	0,25	16,50	0,40				

Steel properties:

Stainless martensitic steel. Similar to AISI 430F.

Applications:

Corrosion resistant freecutting steel, screws, bolts and nuts.

Condition of delivery:

Quenched and tempered

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
		10,3	10,8	11,2	11,6
Thermal conductivity	$\left[\frac{\text{W}}{\text{m} \cdot \text{K}} \right]$	20°C			
		19,6			

Heat treatment:

Soft annealing

Temperature	Cooling	Hardness
750 - 850°C	furnace	

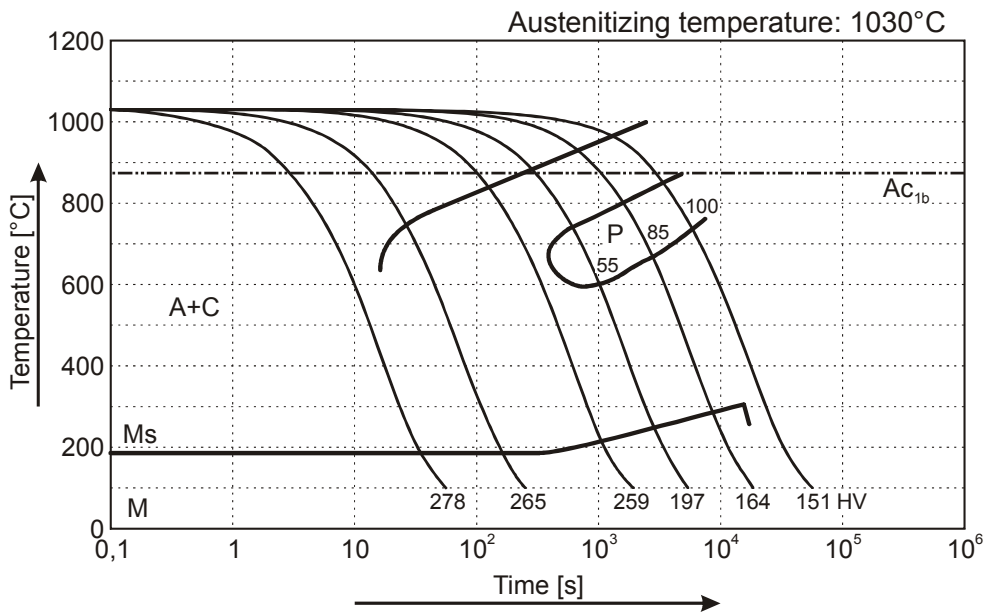
Hardening

Temperature	Cooling	Tempering
950 - 1050°C	oil, pressure gas (N ₂), air	see tempering diagram

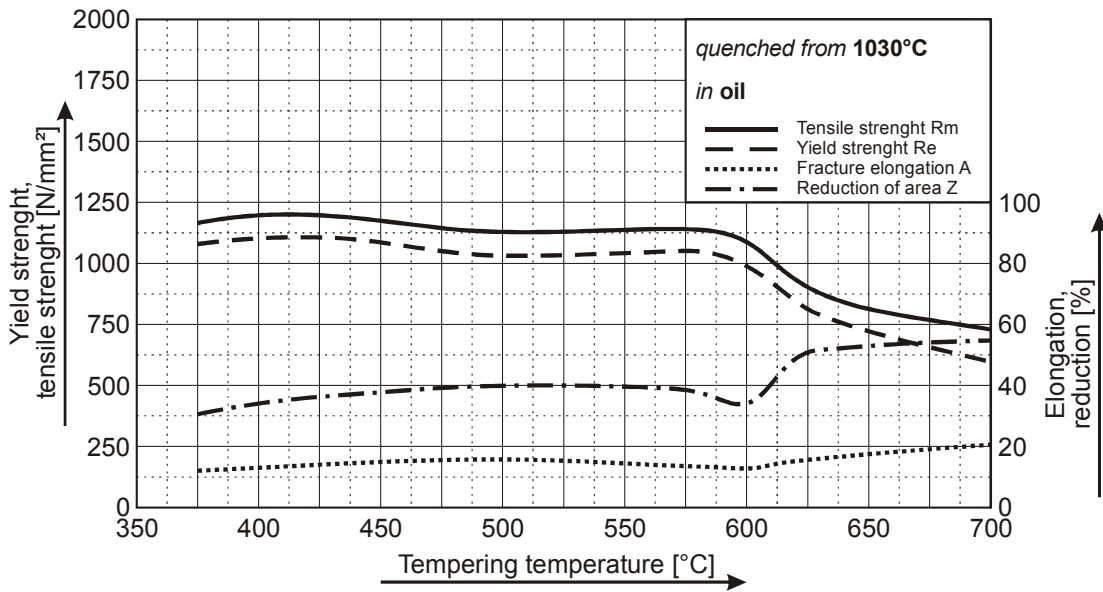
Mechanical properties in quenched and tempered condition (DIN EN 10088-3, 08/95)

	QT650	
Diameter d [mm]	≤ 60	60 - 160
Proof strength Rp 0,2 [N/mm ²]	min. 500	min. 500
Tensile strength Rm [N/mm ²]	650 - 850	650 - 850
Elongation A5 [%]	L: min. 12	L: min. 10

(1.4104) Continuous Cooling Transformation Diagram (CCT)



Tempering Diagram



Remarks: All technical information is for reference only.