

## Technical data sheet – X20Cr13 (1.4021)

- stainless structural steel

**Applications:** Axes, pump parts, waves, ship screws

**Chemical composition** (acc. DIN EN 10250-4 (08/2021))

mass fraction in %				
<b>X20Cr13</b>	<b>C [%]</b>	<b>Si [%]</b>	<b>Mn [%]</b>	<b>Cr [%]</b>
	0,16 – 0,25	≤ 1,00	≤ 1,50	12,00 – 14,00
	<b>P [%] max.</b>	<b>S [%] max.</b>	<b>Mo [%]</b>	<b>Cu [%]</b>
	0,040	0,030	-	-
	<b>Ni [%]</b>	<b>V [%]</b>		
	-	-		

ISO 9001: 2015 TÜV NORD certified.



## Heat treatment (acc. DIN EN 10250-4 (08/2021))

Forging	800 – 1.100 °C	slow cool down
Annealing	750 - 850 °C	
Hardening	QT700 950 – 1.050 °C	Oil
Hardening	QT800 950 – 1.050 °C	Air
Tempering	QT700 650 – 750 °C	
Tempering	QT800 600 – 700 °C	

## Mechanical properties (acc. DIN EN 10250-4 (08/2021))

Dimensions	0,2% Yield strength (Rp0,2)	Tensile strength (Rm)	Elongation (A 5,65)	ISO-V/Charpy-V
<= 160 mm QT700	>= 500 MPa	700 – 850 MPa	>= 12 %	>= 20 J
<= 160 mm QT800	>= 600 MPa	800 – 950 MPa	>= 13 %	>= 25 J

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