

Technical data sheet – 34CrNiMo6 (1.6582)

- High-grade structural steel with high strength and toughness requirements

Applications: Rolling bearings, sprockets, automotive and engine construction, crankshafts, control parts, gear parts, drive axles, eccentric shafts

Chemical composition (DIN EN ISO 683-2 (09/2018))

mass fraction in %				
34CrNiMo6	C [%]	Si [%]	Mn [%]	Cr [%]
	0,30 - 0,38	0,10 - 0,40	0,50 - 0,80	1,30 - 1,70
	P [%]	S [%]	Mo [%]	Ni [%]
	max. 0,025	max. 0,035	0,15 bis 0,30	1,30 - 1,70
	Cu [%]			
	max. 0,40			

Addition: Si content can be reduced if alternative agents are used for deoxidation. Better machinability can be achieved by higher sulfur contents up to about 0.10% S (including controlled sulfide morphology) or lead additions. In this case, the upper limit of the Mn content may also be increased by 0.15%.

ISO 9001: 2015 TÜV NORD certified.



Mechanical properties (DIN EN ISO 683-2 (09/2018))

Flat products (QT):

Dimensions	0,2% Yield strength (Rp0,2)	Tensile strength (Rm)	Elongation (A 5,65)	Constriction (Z)	ISO-V/ Charpy-V
<= 8 mm	>= 1.000 MPa	1.200 - 1.400 MPa	>= 9 %	>= 40 %	
8 - 20 mm	>= 900 MPa	1.100 - 1.300 MPa	>= 10 %	>= 45 %	>= 45 J
20 - 60 mm	>= 800 MPa	1.000 - 1.200 MPa	>= 11 %	>= 50 %	>= 45 J
60 - 100 mm	>= 700 MPa	900 - 1.100 MPa	>= 12 %	>= 55 %	>= 45 J
100 - 160 mm	>= 600 MPa	800 - 950 MPa	>= 13 %	>= 55 %	>= 45 J

Round products (QT):

Dimensions	0,2% Yield strength (Rp0,2)	Tensile strength (Rm)	Elongation (A 5,65)	Constriction (Z)	ISO-V/ Charpy-V
<= 16 mm	>= 1.000 MPa	1.200 - 1.400 MPa	>= 9 %	>= 40 %	
16 - 40 mm	>= 900 MPa	1.100 - 1.300 MPa	>= 10 %	>= 45 %	>= 45 J
40 - 100 mm	>= 800 MPa	1.000 - 1.200 MPa	>= 11 %	>= 50 %	>= 45 J
100 - 160 mm	>= 700 MPa	900 - 1.100 MPa	>= 12 %	>= 55 %	>= 45 J
160 - 250 mm	>= 600 MPa	800 - 950 MPa	>= 13 %	>= 55 %	>= 45 J

Annealed: <= 248 HBW

Achievable surface hardness (inductive/flame hardening): 52-57HRC in >6mm depth