

Chemical Composition Mass-%

	C	Si	Mn	P	S	Cr	Mo	V
min.	0,27	-	0,40	-	-	2,30	0,15	0,10
max.	0,34	0,40	0,70	0,025	0,035	2,70	0,25	0,20

Customer specific restrictions upon request

Properties

CrMoV-alloyed nitriding steel with good machinability and very good wear resistance. Difficult to weld.

Delivery Condition

- ✘ quenched and tempered (+QT)
- ✘ quenched, tempered, stress-relieved (+QT + SR)
- ✘ annealed (+A) max. 248 HBW

Application Area

Components used in general mechanical engineering that are subjected to high surface stresses and dynamic loads. The surface is nitrided after machining.

Typical Applications

- ✘ Worms and spindles
- ✘ Gear wheels
- ✘ Control components
- ✘ Crankshafts and connecting rods

Mechanical Properties quenched and tempered (+QT) acc. DIN EN 10085, at room temperature

Diameter d [mm]	Yield strength [N/mm ²]	Tensile strength [N/mm ²]	Elongation [%]	Impact toughness [J] Charpy-V
16 ≤ d ≤ 40	≥ 900	1100 - 1300	≥ 9	≥ 25
40 < d ≤ 100	≥ 800	1000 - 1200	≥ 10	≥ 30
100 < d ≤ 160	≥ 700	900 - 1100	≥ 11	≥ 35
160 < d ≤ 250	≥ 650	850 - 1050	≥ 12	≥ 40

Heat Treatment acc. DIN EN 10085, guideline values

	Temperature [°C]	Cooling medium
Annealing (+A)	680 - 720	
Quenching and tempering (+QT)	870 - 930 (Hardening) 580 - 700 (Tempering)	Oil, water
Nitriding	480 - 570	

Quality

- ISO 9001
- ISO 14001
- ISO 50001
- Approvals acc. to standards like ABS, BV, DNV ...
- Customer specific approval certificates

Innovation

- Fully automated ultrasonic testing up to dia. 1000 mm
- CO₂-reduction by innovative heat treatment solutions

Flexibility

- Product range from fine wire to forging
- Directly from stock close at hand

Individuality

- Dimensions
- Tolerances
- Surface qualities
- Delivery conditions

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