

1.7765 (32CrMoV12-10)

SEL 11. Edition

Chemical Composition Mass-%

	C	Si	Mn	P	S	Cr	Mo	V
min.	0,30	-	-	-	-	2,8	0,8	0,25
max.	0,35	0,35	0,6	0,025	0,010	3,2	1,2	0,35

Customer specific restrictions upon request

Properties

CrMoV-alloyed nitriding steel with high strength, toughness and fatigue resistance. Wear resistance of the surface can be improved by nitriding.

Delivery Condition

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

Application Area

Components used in the automotive industry and general mechanical engineering requiring high surface wear resistance.

Typical Applications

- ✘ Crankshafts
- ✘ Gears
- ✘ Ball bearings
- ✘ Gun barrels

Mechanical Properties quenched and tempered (+QT)

Diameter d [mm]	Yield strength [N/mm ²]	Tensile strength [N/mm ²]	Elongation [%]	Impact toughness [J] Charpy-V
15 ≤ d ≤ 160	≥ 740	≤ 1080	≥ 10	≥ 27 [-40 °C]

Customer specific restrictions upon request

Heat Treatment Guideline values

		Temperature [°C]	Cooling medium
Annealing (+A)	approx. 215 HBW	740 - 760	Furnace
Quenching and tempering (+QT)	Hardening	900 - 950	Oil, polymer, water
	Tempering	570 - 720	

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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