

35 HGS

STEEL FOR HEAT TREATMENT

APPLICATION

After heat treatment (quenching) or hardening can be used to manufacture heavily loaded parts: shafts, axles, shafts, spindles, levers, vehicle driveshafts.

CHEMICAL COMPOSITION

Chemical composition (in weight %)

Element	C	Si	Mn	P	S	Cr	Mo	W	V	Ni
min	0.32	1.10	0.80	max.	max.	1.10	max.	max.	max.	max.
max.	0.40	1.40	1.10	0.035	0.035	1.40	0.10	0.20	0.05	0.30

TREATMENT

Rolling	YES
Nitriding	YES
Hardening	860°C - 880°C
Tempering	500°C - 650°C

MECHANICAL PROPERTIES

In softened condition	max. 240 HB
In hardened condition	max. 60 HRC
In treated condition	max. 32 HRC
Tensile strength Rm	≥ 1620 MPa
Yield strength Re	≥ 1280 MPa
Elongation A5 (%)	≥ 9
Reduction of area Z (%)	≥ 40
Notch work KU2 (J)	≥ 32