

18HGT

CASE HARDENING STEEL

APPLICATION

For loaded parts with high core strength: gears, shafts.

CHEMICAL COMPOSITION

Chemical composition (in weight %)

Element	C	Si	Mn	P	S	Cr	W	V	Ni	Cu
min	0.17	0.17	0.80	max.	max.	1.10	max.	max.	max.	max.
max.	0.23	0.37	1.10	0.035	0.035	1.30	0.20	0.05	0.30	0.30

TREATMENT

Carburising	880°C - 950°C
Carbonitriding	860°C - 930°C
Hardening I	850°C - 880°C
Annealing	660°C - 680°C
Hardening II	810°C - 830°C
Tempering	150°C - 200°C

MECHANICAL PROPERTIES

Tensile strength Rm	≥ 980
Elongation A5 (%)	≥ 9
Reduction of area Z (%)	≥ 50
Yield strength Re	≥ 830
Notch work KU2 (J)	≥ 64
Hardness (after softening) HB	≥ 217