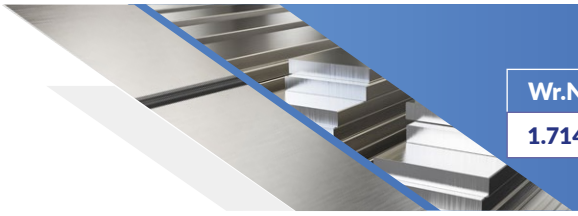
MULTISTAL
Lohmann



CASE HARDENING STEEL

Wr.Nr.	PN	EN	GOST	AISI
1.7147	20HG	20MnCr5	~18ЦХГ	~5120H

CHEMICAL COMPOSITION

Chemical composition (in weight %)

Element	C	Si	Mn	P	S	Cr	Cu
min	0.17	max.	1.10	max.	max.	1.00	max.
max	0.22	0.40	1.40	0.025	0.035	1.30	0.40

APPLICATION

Parts with predominant high-wear stress which works under heavy load , piston pins, levers, worm wheels, bushings, camshafts and other vehicle parts.

TREATMENT

Jominy test	900 °C (± 5 °C) at least 30 min. austenitizing time (reference value)
Carburizing	880 - 980 °C
Direct and single hardening	820 - 860 °C
Core hardening	860 - 900 °C
Case hardening	780 - 820 °C
Tempering	150 - 200 °C mind. 60 min. (approx.)

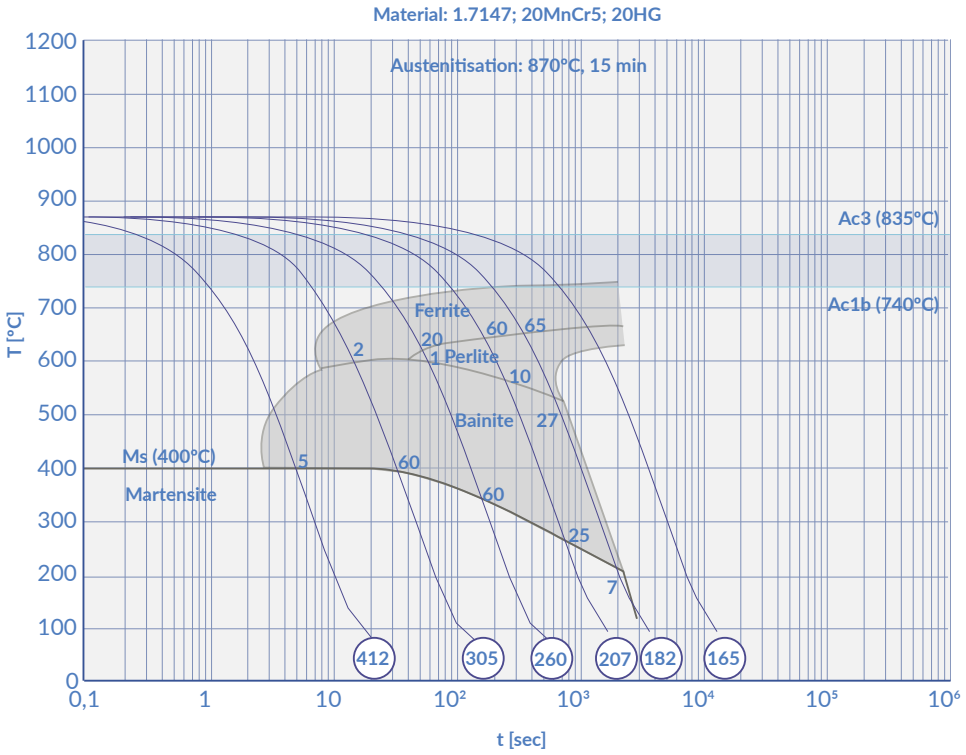
ADDITIONAL HEAT TREATMENT

Normalising	840 - 870 °C
Soft annealing	650 - 700 °C
Intermediate annealing	650 - 700 °C

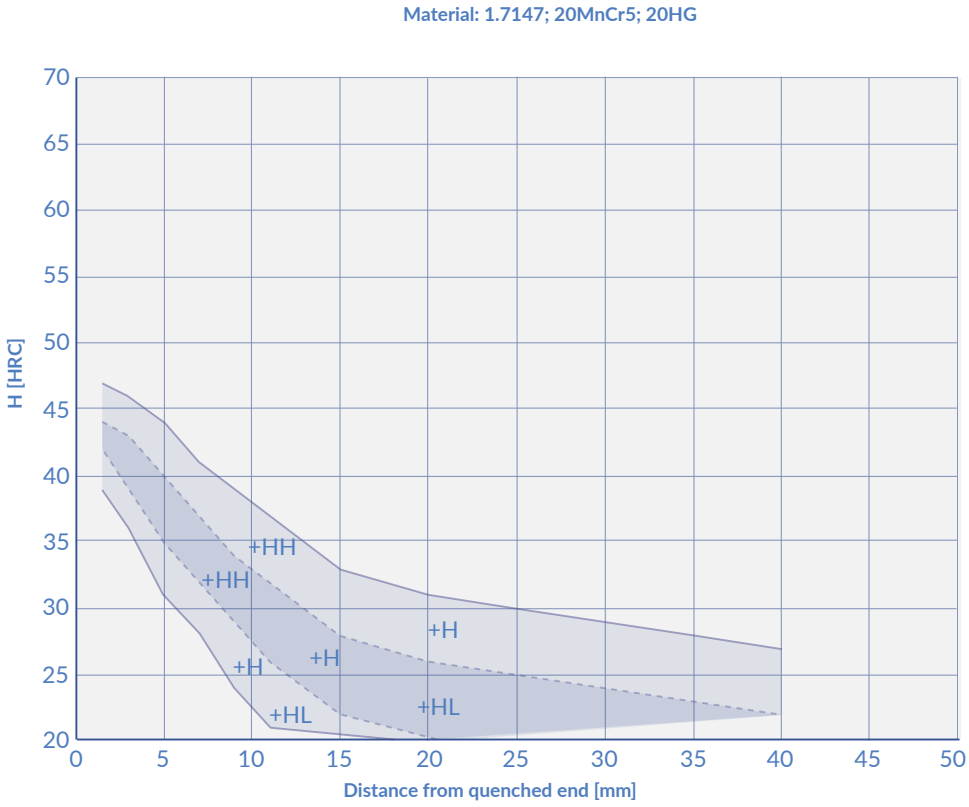
MECHANICAL PROPERTIES

Modulus of elasticity [GPa]	215
Shear modulus [GPa]	83
Poisson ratio	0,30

CONTINUOUS COOLING TRANSFORMATION (CCT) DIAGRAM



TEMPERING DIAGRAM



NOTE: All technical information is for reference only.