

1.2842

90MnCrV8 / NMV

COLD WORK TOOL STEEL

APPLICATION

Cutting, punching and embossing tools, squeeze mouldings for plastics industry, rollers measuring tools. Gauges, long taps, reamers, disc and circular knives for paper and leather, shear blades, guide rails

CHEMICAL COMPOSITION

Chemical composition (in weight %)

Element	C	Si	Mn	P	S	Cr	V
min	0.85	0.10	1.80	maks.	maks.	0.20	0.05
max	0.95	0.40	2.20	0.03	0.03	0.50	0.20

TREATMENT

Hardening	790°C ± 10°C / Oil
Tempering	180°C ± 10°C (see tempering diagram)
Hardness [HRC]	min. 60

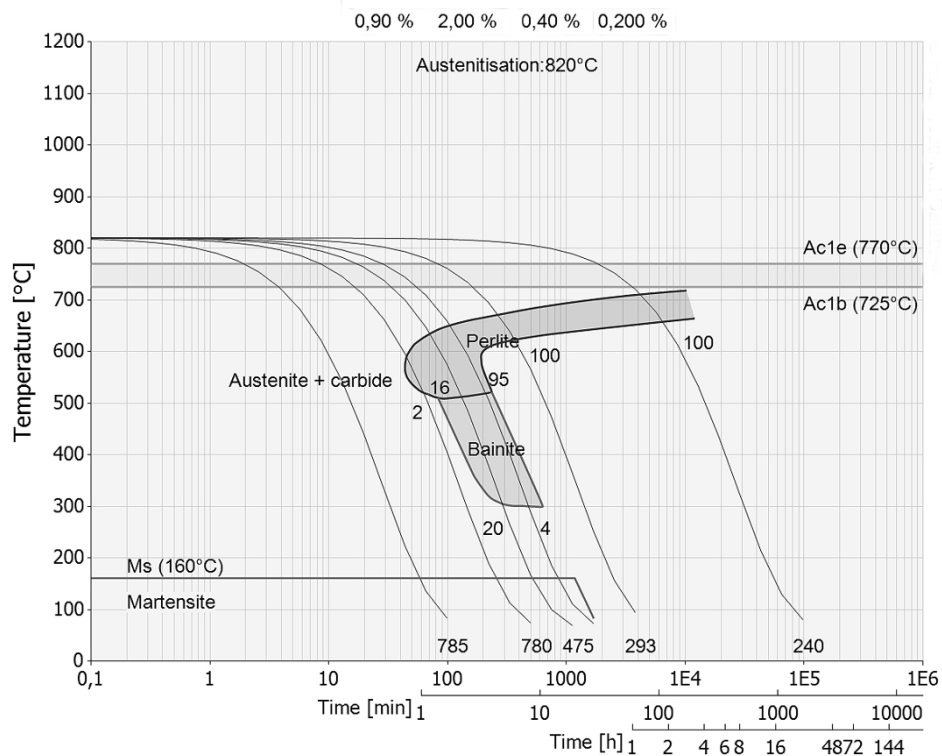
ADDITIONAL HEAT TREATMENT

Soft annealing	680 - 720°C /furnace; max. 220 HB
Stress relieving	650 - 680°C (only for soft delivery conditions)
Additional quenching media	Hot bath 180 - 220°C

MECHANICAL PROPERTIES

Condition	Soft annealed (+A)	Annealed and cold drawn (+A+C)
Hardness [HB]	max. 229	max. 249

CONTINUOUS COOLING TRANSFORMATION (CCT) DIAGRAM



TEMPERING DIAGRAM

