

1.2767

45NiCrMo16 / NPW

PLASTIC MOLD STEEL

APPLICATION

Highly stressed coining tools, cutlery dies, hobbing tools, cold shear blades for heavy-gauge material, plastic moulds. Rollers for pressing, punches, minting tools, large shear knives for cold cutting of thick steel blanks, stamping and cold forging dies, mold inserts.

CHEMICAL COMPOSITION

Chemical composition (in weight %)

Element	C	Si	Mn	P	S	Cr	Mo	Ni
min	0.40	0.10	0.20	max	max	1.20	0.15	3.80
maks.	0.50	0.40	0.50	0.03	0.03	1.50	0.35	4.30

TREATMENT

Hardening	850 ± 10°C / Oil
Tempering	180 ± 10°C
Hardness [HRC]	min. 52 (see tempering diagram)

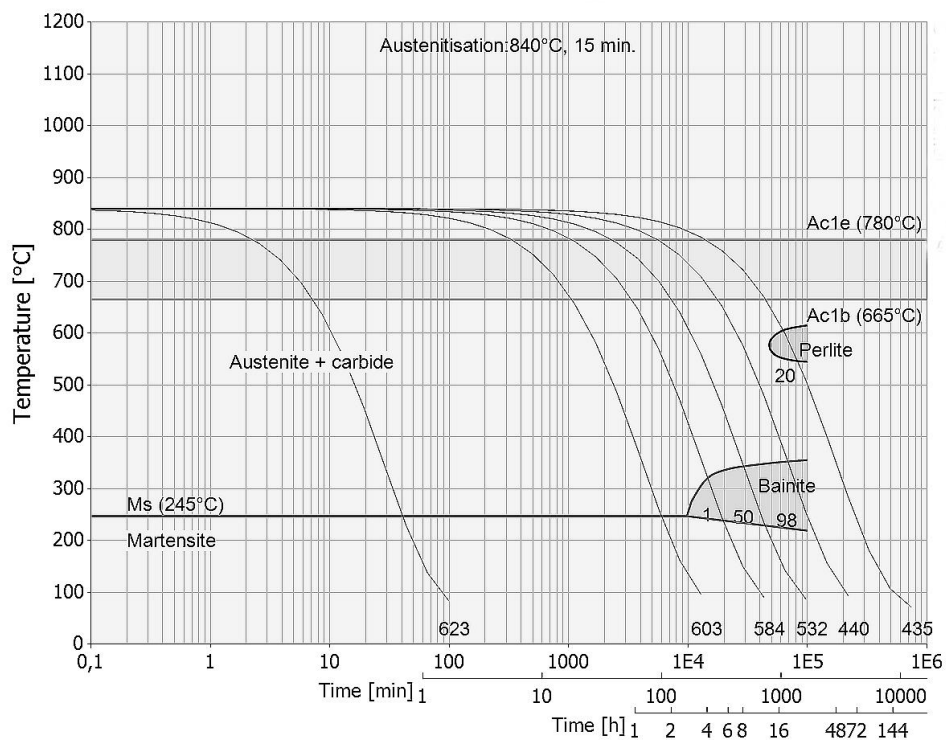
ADDITIONAL HEAT TREATMENT

Soft annealing	610 - 650°C / furnace; max. 260 HB
Stress relieving	610 - 650°C (only for soft delivery conditions)
Additional quenching media	Air, hot bath 180-220°C

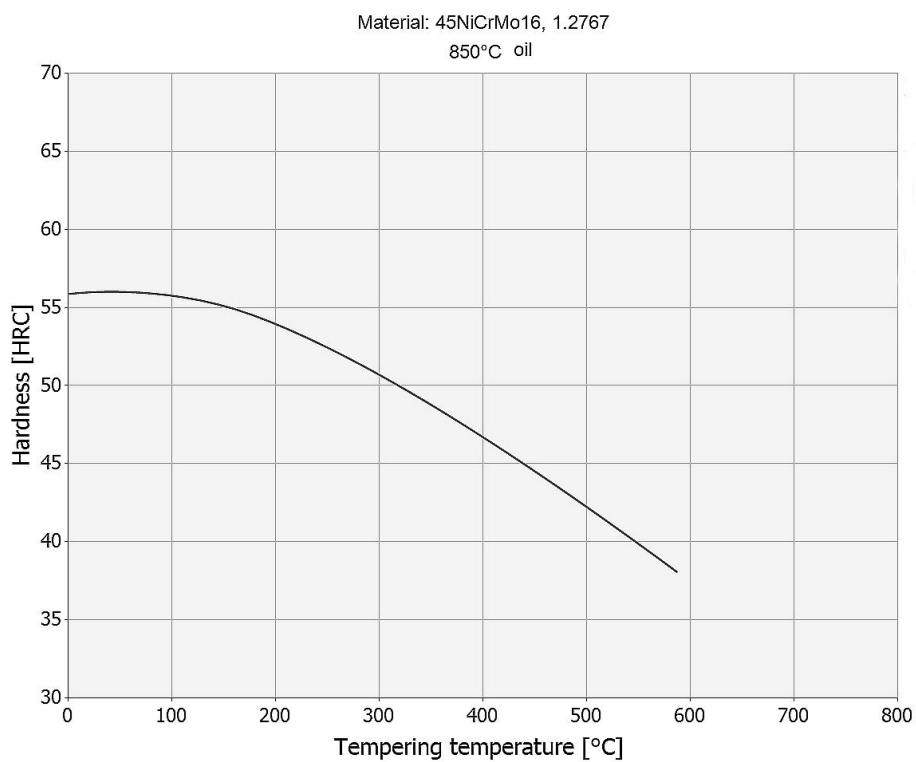
MECHANICAL PROPERTIES

Condition	Soft annealed (+A)	Annealed and cold drawn (+A+C)
Hardness [HB]	max. 285	max. 305

CONTINUOUS COOLING TRANSFORMATION (CCT) DIAGRAM



TEMPERING DIAGRAM



NOTE: All technical information is for reference only