

1.1730

C45U

PLASTIC MOLD STEEL

APPLICATION

Shell-hardenable steel with wear resistant surface, high core toughness; body sections for tools, hand tools, agricultural tools

CHEMICAL COMPOSITION

Chemical composition (in weight %)

Element	C	Si	Mn	P	S
min	0.42	0.15	0.60	max	max
max.	0.50	0.40	0.80	0.03	0.03

TREATMENT

Hardening	810°C ± 10°C / water
Tempering	180°C ± 10°C (see tempering diagram)
Hardness [HRC]	min. 54

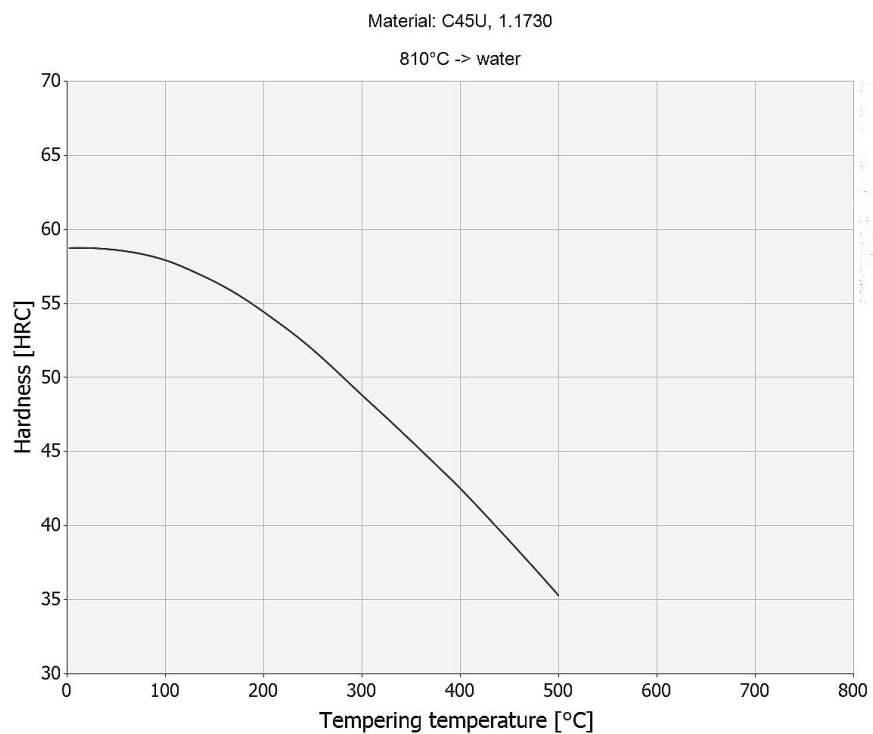
ADDITIONAL HEAT TREATMENT

Normalizing	850°C / air
Soft annealing	680 - 710°C / furnace, air
Stress relieving	600 - 650°C (only for soft delivery conditions)

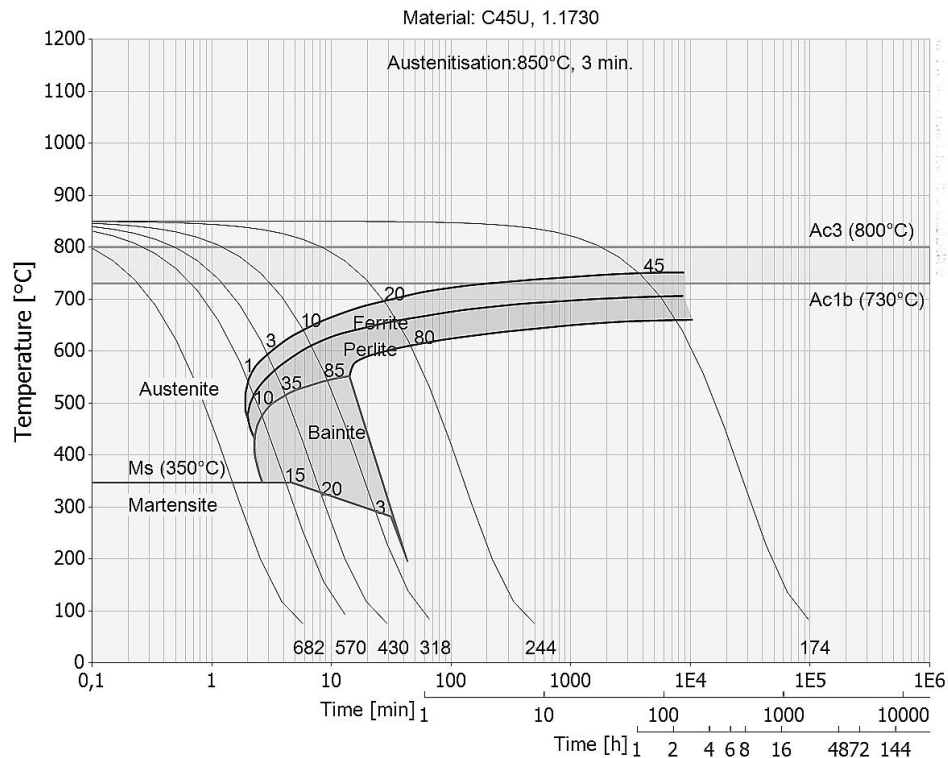
MECHANICAL PROPERTIES

Condition	Soft annealed (+A)	Annealed and cold drawn (+A+C)
Hardness [HB]	max. 207	max.227

CONTINUOUS COOLING TRANSFORMATION (CCT) DIAGRAM



TEMPERING DIAGRAM



NOTE: All technical information is for reference only