

SM - 1730

	C	Si	Mn	P	S
■ Typical analysis	0,45	0,30	0,70		
■ Chemical composition as per SEL	0,42>0,50	Max 0,40	0,60>0,80	<=0,030	=0,030

Figures in % by mass.

■ Standards	
UNI	C45U
W.Nr	1.1730
DIN	C45U
AFNOR	XC48
AISI/SAE	~ 1045
BS	C~ 45E

■ Supply Conditions	
Annealed to max	190 HB

■ Main characteristics and applications

Surface hardenable tool steel with hard surface and tough core.

Used for cold heading dies, top and bottom plates for plastic die casting, die casting tools, hand tools, tongs, agricultural tools, blanking tools, leather knives.

■ Heat Treatment		
Annealing	Temperature:	Heat to 680-710 °C
	Cooling:	Furnace cooling
Stress relieving	Temperature:	Heat to 600-650 °C
	Cooling:	Furnace or steel air cooling
Hardening	Preheating:	600-650 °C
	Hardening:	800 - 830 °C and hold temperature
	Cooling:	in water
	Hardening:	after quenching: HRC 46-57
Tempering		300 -350 ° C for 1 hour for 20 mm of thickness minimum 2 h

■ Critical points	
Ac1	730° C
Ms	340° C

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