

## O1 2510

	C	Si	Mn	P	S	Cr	V	W
Typical analysis	0.95	0.25	1.10	< 0.030	< 0.030	0.55	0.10	0.55
Chemical composition (%)	0.85 - 1.00	0.10 - 0.50	1.00 - 1.40	0.030	0.030	0.40 - 0.70	0.15 - 0.30	0.40 - 0.60

Figures in % by mass

AFNOR	90 MCWV 4
AISI	O 1
BS	BO 1

### Characteristics

Good cutting edge retention, high hardenability, dimensionally stable during heat treatment.

### Applications

Blanking and punching dies up to 6 mm sheet steel thickness; thread cutting tools, drills, reamers, calibres, measuring instruments.

Industrial blades.

### Delivered condition

Annealed to max. 212HB

### Physical properties (reference values)

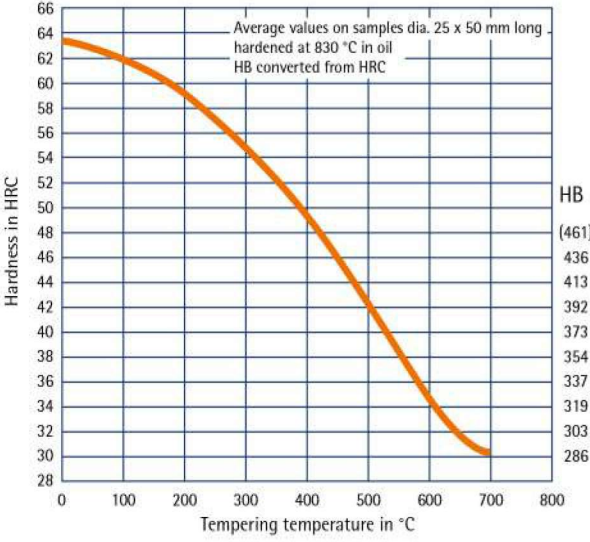
Thermal expansion coefficient ( $10^{-6}/K$ )	20-260 °C 10.6
Thermal conductivity (W/mK)	20 °C 33.4
Young's modulus (GPa)	20 °C 193

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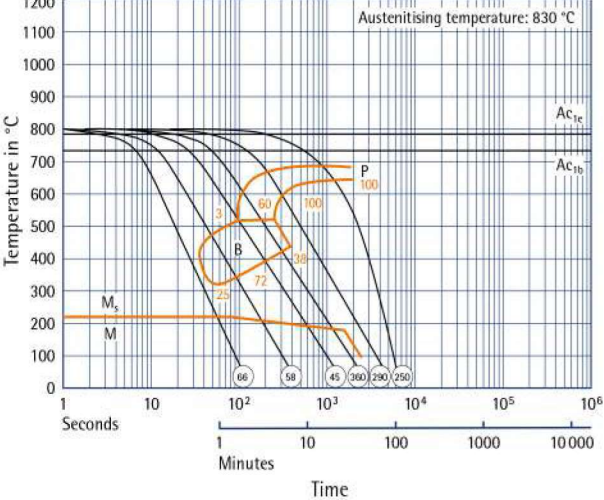
# 2510

Heat treatment		
Stress relieving	Temperature:	Approx. 650 °C in the annealed state
	Duration:	1 hour per 50 mm wall thickness
	Cooling:	Furnace
Soft annealing	Temperature:	750 °C
	Duration:	1 hour per 25 mm wall thickness
	Cooling:	Furnace
Hardening	Temperature:	830 °C
	Duration:	1 minute per mm wall thickness
Quenching hardness	Max. 64 HRC	in oil, hot bath or vacuum
Tempering	Temperature:	See tempering curve
	Duration:	1 hour per 25 mm wall thickness
	Cooling:	Air
Working hardness	58–62 HRC	

## Tempering curve



## TTT curve (continuous)



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