

I Buderus Cold Work Tool Steel 2436 ISO-B

	C	Si	Mn	P	S	Cr	W
Typical analysis	2.10	0.30	0.30	0.030	0.005	12.0	0.70
Chemical composition as per SEL	2.00–2.30	0.10–0.40	0.30–0.60	≤ 0.030	≤ 0.030	11.0–13.0	0.60–0.80

Figures in % by mass

Register of European Steels (SEL)	X 210 CrW 12
DIN EN ISO 4957	X 210 CrW 12
AFNOR	Z 210 CW 12
AISI	D 6
BS	BD 6

Characteristics

Extremely wear-resistant and low-distortion high-performance steel.

Applications

The same applications as grade 2080 with higher blanking performance and improved wear resistance, therefore also suitable for dynamo cuts and for machining cold hammered strip.

Delivered condition

Annealed to max. 255 HB

Physical properties (reference values)

Thermal expansion coefficient ($10^{-6}/K$)	20–100 °C	20–250 °C	20–500 °C
	9.0	12.0	13.0
Thermal conductivity (W/mK)	20 °C	250 °C	500 °C
	20.0	21.0	22.0
Young's modulus (GPa)	20 °C	250 °C	500 °C
	215	196	180

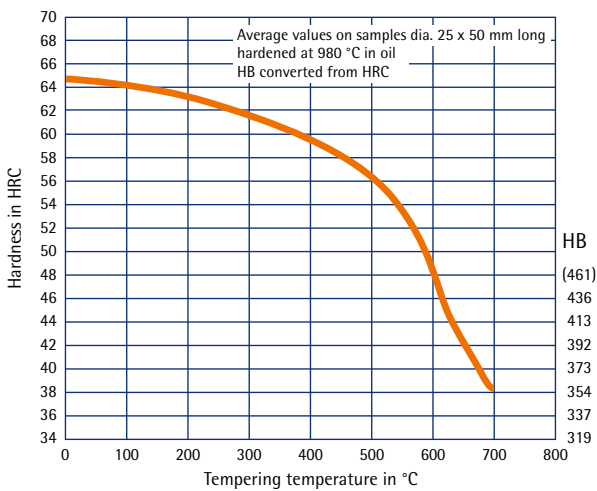
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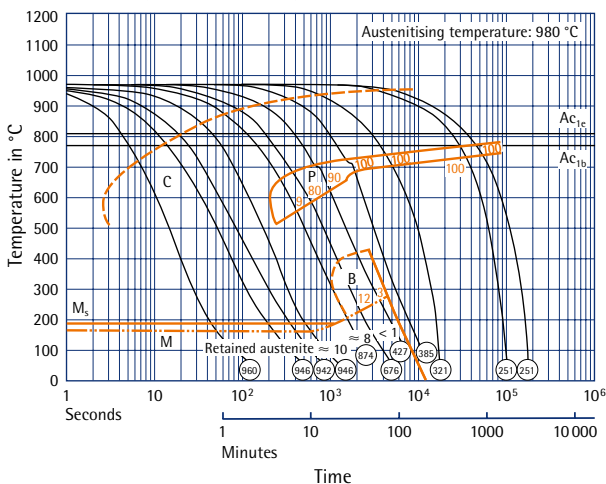
Heat treatment	
Stress relieving	Temperature: Approx. 650 °C in the annealed state Approx. 180 °C in the hardened state Duration: 1 hour per 50 mm wall thickness Cooling: Furnace
Soft annealing	Temperature: 820 °C Duration: 1 hour per 25 mm wall thickness Cooling: Furnace
Hardening	Temperature: 980 °C Duration: 90 seconds per mm wall thickness
Quenching hardness	Max. 64 HRC in oil, hot bath, air or vacuum
Tempering	Temperature: See tempering curve Duration: 1 hour per 25 mm wall thickness Cooling: Air
Working hardness	59–63 HRC

Note: Surface pitting can occur with hot quenching in nitric baths.

Tempering curve



TTT curve (continuous)



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