

I Buderus Cold Rolled Steel 2327 ISO-B

	C	Si	Mn	P	S	Cr	Mo	V
Typical analysis	0.86	0.25	0.40	0.030	0.003	1.80	0.30	0.10
Chemical composition as per SEL	0.83–0.90	0.15–0.35	0.30–0.45	≤ 0.030	≤ 0.030	1.60–1.90	0.20–0.35	0.05–0.15

Figures in % by mass

Register of European Steels (SEL)	86 CrMoV 7
AFNOR	85 CDV 7

Characteristics

Chromium alloy surface hardening steel, penetration depth to about 30 mm.

Applications

Cold rolls, embossing rolls, paper cutting rolls, briquetting rollers.

Delivered condition

Annealed to max. 250 HB or hardened and tempered to 280–325 HB (Δ approx. 950–1100 MPa)*

Physical properties (reference values)

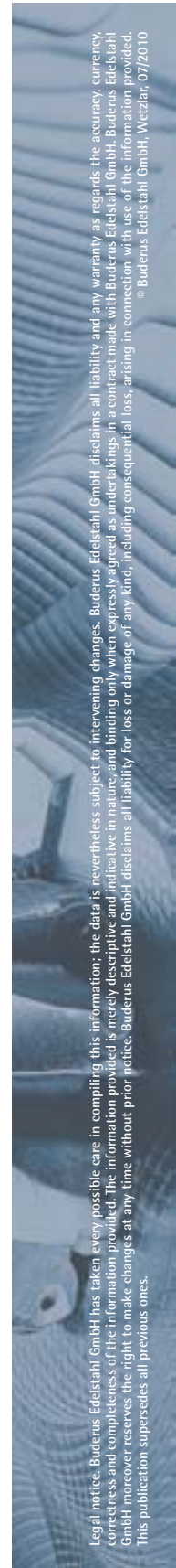
Thermal expansion coefficient ($10^{-6}/K$)	20–100 °C	20–250 °C	20–500 °C
	11.0	12.3	13.8
Thermal conductivity (W/mK)	20 °C	250 °C	500 °C
	37.0	37.5	36.0
Young's modulus (GPa)	20 °C	250 °C	500 °C
	211	195	174

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* Surface hardness in Brinell, converted to DIN EN ISO 18265, Table A.1

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Heat treatment	
Stress relieving	Temperature: Approx. 680 °C in the annealed state Approx. 180 °C in the hardened and tempered state Duration: 1 hour per 50 mm wall thickness Cooling: Furnace
Soft annealing	Temperature: 740 °C Duration: 1 hour per 25 mm wall thickness Cooling: Furnace
Hardening	Temperature: 870 °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	58–64 HRC



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