

I Buderus Plastic Mould Steel Thruhard Efficient

	C	Si	Mn	P	S	Cr	Ni	Mo
Typical analysis	0,30	0,10	1,45	0,020	0,003	1,35	0,65	0,50

Figures in % by mass

Characteristics

Mould steel with hardness 280–325 HB or 310–355 HB.

Hard chrome plateable, flame and laser hardenable, etch-grainable, nitridable (max. 500 °C).

Where there is a requirement for polishability > 320 grit and/or sensitive etch-graining designs (e.g. HNO₃, fine or textile graining) we recommend 2738mod.TS(HH).

For applications that require a combination of high strength and toughness we recommend grade 2711 ISO-B.

Applications

Compression and injection moulds where higher hardness is needed.

Thickness max. 600 mm (width on request).

Delivered condition

Quenched and tempered to 280–325 HB (Δ approx. 950–1100 MPa)*

Quenched and tempered to 310–355 HB (Δ approx. 1050–1200 MPa)*

Physical properties (reference values)

Thermal expansion coefficient (10 ⁻⁶ /K)	20–100 °C	20–250 °C	20–500 °C
	11.5	12.7	14.2
Thermal conductivity (W/mK)	20 °C	250 °C	500 °C
	36.9	38.0	34.3
Young's modulus (GPa)	20 °C	250 °C	500 °C
	211	194	165

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

