

I Buderus Plastic Mould Steel 2711 ISO-B

	C	Si	Mn	P	S	Cr	Ni	Mo	V
Typical analysis	0.52	0.20	0.70	0.020	0.002	0.75	1.75	0.30	0.10
Chemical composition as per SEL	0.50–0.60	0.15–0.35	0.50–0.80	≤ 0.025	≤ 0.025	0.60–0.80	1.50–1.80	0.25–0.35	0.07–0.12

Figures in % by mass

Register of European Steels (SEL)	54 NiCrMoV 6
AFNOR	55 NCDV 7
AISI	~ 6 F 2
BS	~ BH 224

Characteristics

High toughness, high compressive strength, polishable.
Nitridable as delivered; hard chrome plateable, flame hardenable, grain reliable.

Applications

For larger compression and injection moulds subject to higher mechanical and thermal stress. Contour hardening is recommended.
With higher working hardness, also suited to processing SMC and GMT, in combination with surface coating if applicable.

Delivered condition

Annealed to max. 248 HB,
Hardened and tempered to 280–325 HB (Δ approx. 950–1100 MPa)*
or to 355–415 HB (Δ approx. 1200–1400 MPa)*
or to customer specification

Physical properties (reference values)

Thermal expansion coefficient ($10^{-6}/K$)	20–100 °C	20–250 °C	20–500 °C
	11.0	12.4	13.5
Thermal conductivity (W/mK)	20 °C	250 °C	500 °C
	33.0	35.0	33.0
Young's modulus (GPa)	20 °C	250 °C	500 °C
	212	197	175

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

