

2738 Mod Efficient Extrahard Plastic Mould Steel

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

Figures in % by mass.

■ Characteristics

Mould steel with higher hardness 350–395 HB.

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

Where there is a requirement for polishability > 400 grit and/or sensitive etch-graining designs (e.g. HNO₃ 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 350–395 HB (Δ approx. 1180 – 1340 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

* Surface hardness in Brinell, converted to DIN EN ISO 18265, Table A.1; we offer no quality guarantee with higher hardness requirements.

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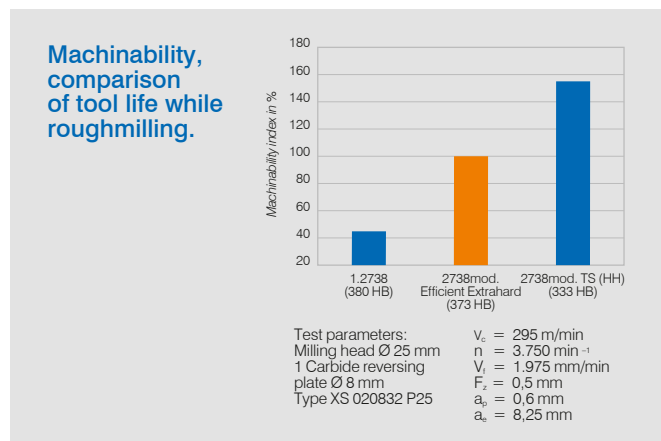
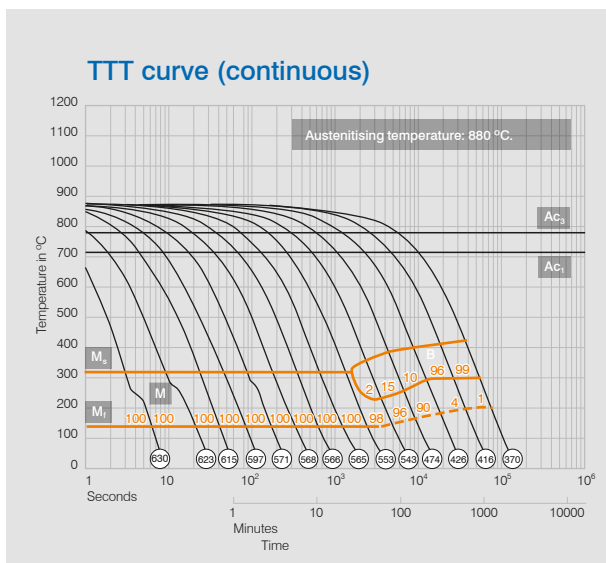
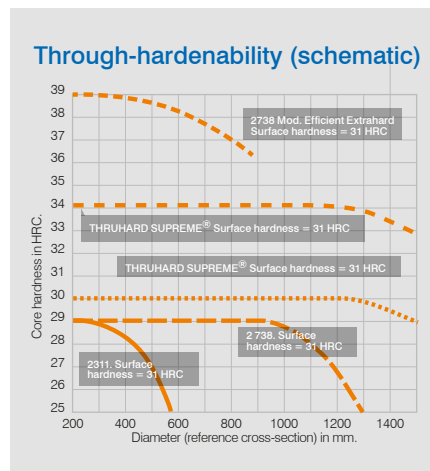
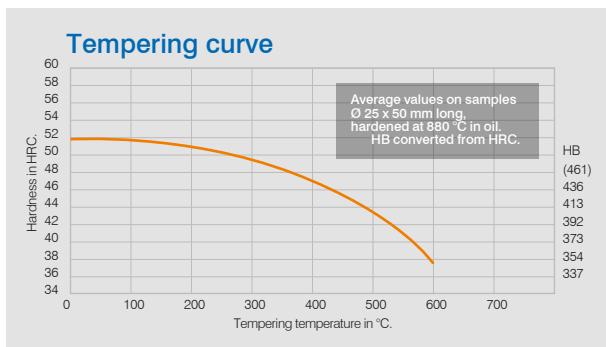
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■ Heat Treatment		
Stress relieving	Temperature:	Approx. 600 °C in the annealed state. Approx. 500 °C in the quenched an tempered state.
	Duration:	1 hour per 50 mm wall thickness.
	Cooling:	Furnace.
Soft annealing	Temperature:	700 °C
	Duration:	1 hour per 25 mm wall thickness.
	Cooling:	Furnace.
Hardening	Hardening:	880 °C
	Duration:	1 minute per mm wall thickness.
	Quenching hardness	Max.58 HRC
Tempering	Temperature:	See tempering curve
	Duration:	1 hour per 25 mm wall thickness.
	Cooling:	Air
Working Hardness	Max. 350+395 HB	



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