

2738 Mod TS (HH) Thruhard Supreme Plastic Mould Steel

■ Typical analysis	C	Si	Mn	P	S	Cr	Ni	Mo	V
	0,26	0,10	1,45	0,015	0,002	1,25	1,05	0,50	0,10

Figures in % by mass.

■ Characteristics

Recently developed plastic mould steel, distinguished from grades 2311 and 2738 by:

- Higher hardness and better through-hardenability.
- Polishability up to 600 grit (high gloss finish reliability on request).
- Grain reliability even with sensitive etch-graining designs. Improved weldability
- Higher thermal conductivity we recommend grade 2738 mod.TS(HH).

Nitridable, hard chrome plateable, flame hardenable as delivered; its higher basic hardness provides better support for surface finishing (such as PVD coating).

■ Applications

Compression and injection moulds to accommodate large dimensions such as bumpers, dashboards, chairs, rubbish bins, bottle crates, television cabinets, etc.

■ Delivered condition

- HighHard: 2738mod.TS(HH) Quenched and tempered to 310–355 HB (Δ approx. 1050 – 1100 MPa)*.
- Normal hardness: 2738mod.TS.

■ Physical properties (reference values)			
Thermal expansion coefficient (10 ⁻⁶ /K)	20–100 °C	20–250 °C	20–500 °C
	10,8	12,2	13,9
Thermal conductivity (W/mK)	20 °C	250 °C	500 °C
	37,4	41,3	39,8
Young's modulus (GPa)	20 °C	250 °C	500 °C
	204	188	160

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

SERMETAL BARCELONA, S.L.U.

Viladecans • Andorra, 59-61 • Pol. Ind. Can Calderón • 08840 Viladecans (Barcelona) • Tel. 936 357 380 • Fax 936 585 465 | sermetalbcn@sermetalbcn.com

SERMETAL UNIPESSOAL, Lda.

Estarreja • Eco parque Empresarial de Estarreja • Rua de Freguesia de Beduído, Lote 7 n° 10 • 3860-356 Estarreja
Tel. +351 234 840 060 • Fax +351 234 840 069 | geral.estarreja@sermetal.pt

Coucineira • Rua Central da Coucinheria • 2400-768 Amor • Tel. +351 234 840 060 • Fax +351 234 840 069 | geral.estarreja@sermetal.pt

Moita (machining division) • Rua 23 de Outubro n° 2 • 2445-573 Moita • Tel. +351 244 502 092 | general.moita@sermetal.pt

www.sermetal.es

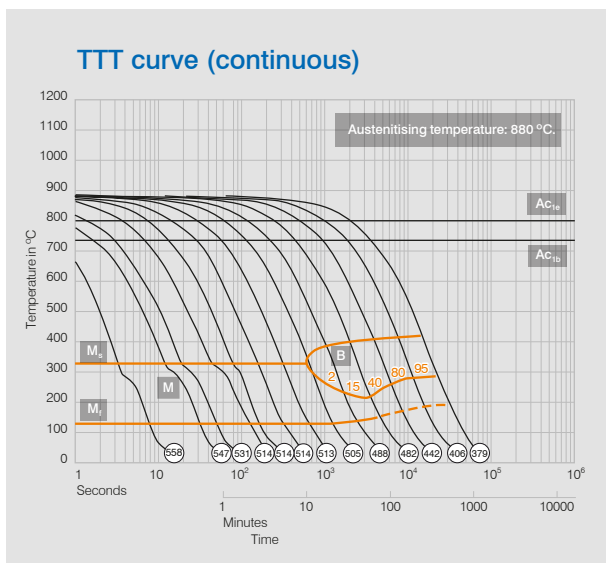
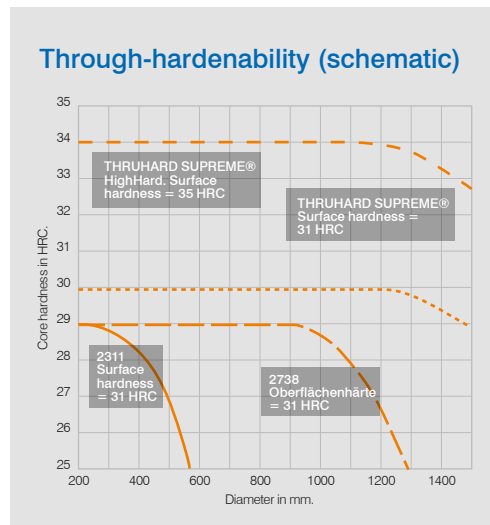
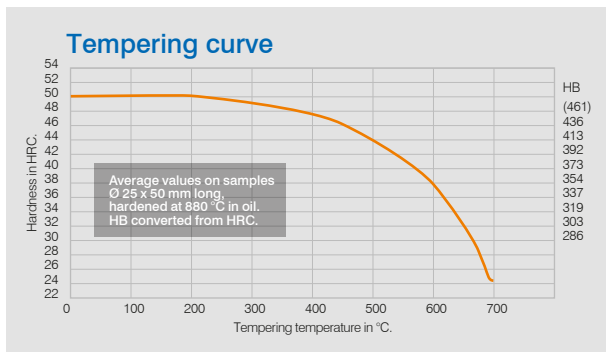
Sermetal

a voestalpine company

2738 Mod TS (HH) Thruhard Supreme

Plastic Mould Steel

■ Heat Treatment		
Stress relieving	Temperature:	Approx. 650 °C in the annealed state. Approx. 560 °C in the quenched and tempered state.
	Duration:	1 hour per 50 mm wall thickness.
	Cooling:	Furnace.
Soft annealing	Temperature:	720 °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	in oil, hot bath or vacuum
Tempering	Temperature:	See tempering curve
	Duration:	1 hour per 25 mm wall thickness.
	Cooling:	Air
Working Hardness	Max. 280-355 HB	



Legal notice: Sermetal has taken every possible care in compiling this information; the data is nevertheless subject to intervening changes Sermetal disclaims all liability and any warranty as regards the accuracy, currency, correctness and completeness of the information provided. The information provided is merely descriptive and indicative in nature and binding only when expressly agreed as undertakings in a contract made with Sermetal. Sermetal moreover reserves the right to make changes at any time without prior notice. Sermetal disclaims all liability for loss or damage of any kind, including consequential loss, arising in connection with use of the information provided. This publication supersedes all previous ones.