

MATERIAL NO.:

1.2738 TSHH

DESIGNATION:

DIN: Special alloy  
 AFNOR: -  
 UNI: -  
 AISI: -

TECHNICAL TIP:

- » Uniform hardness over the entire cross section
- » Improved weldability
- » Higher toughness than 1.2738

INDICATORY ANALYSIS:

C 0.26  
 Mn 1.45  
 Cr 1.25  
 Mo 0.50  
 Ni 1.05  
 V 0.12

STRENGTH:

33 - 38 HRC  
 (≈ 1050 - 1200 N/mm<sup>2</sup>)

THERMAL CONDUCTIVITY AT 250°C:

41.3  $\frac{W}{m K}$

COEFFICIENT OF THERMAL EXPANSION  
 [10<sup>-6</sup>/K]

100°C	200°C	300°C	400°C	500°C	600°C	700°C
10.8	11.5	12.2	13.1			

CHARACTER:

- » Modified, pre-toughened steel for injection moulds, which is characterised by good polishability and excellent grainability; high thermal conductivity and wear resistance

APPLICATION:

- » Cavity plates without dimension restrictions, with deep cavities and high core loads

TREATMENT BY:

- » Polishing, etching, EDM, nitriding:  
highly suitable
- » Hard chrome plating:  
is possible

HEAT TREATMENT:

Already pre-toughened; usually no heat treatment required

- » Soft annealing:  
720°C 1 hour per 25 mm part thickness  
slow controlled cooling inside the furnace  
**max. 245 HB**
- » Hardening:  
880 °C  
keep curing temperature for 15 to 30 minutes  
cooling in hot bath/oil/compressed gas  
obtainable hardness: **50 HRC**
- » Tempering:  
slow heating to tempering temperature immediately after hardening;  
minimum time in furnace: 1 hour per 25 mm part thickness

TEMPERING CHART:

