



HiPrene® HT44T

Polypropylene Compound

Product Description

HiPrene® HT44T is a 40% mineral filled polypropylene compound suitable for injection moulding. This material has a good flowability and excellent balanced mechanical properties. This grade is available in natural or color-matched, pellet form.

Product Characteristic

Status	Commercial: Active	
Test Method Used	ISO	
Availibility	Europe	
Features	Low Shrinkage	Heat resistance
	High Stiffness	Good Processability
Typical Customer Applications	White goods/Automotive under the bonnet parts	

Typical Properties

Physical	Symbol	Test Method	Unit	Value
Melt Mass-Flow Rate	MFR	ISO 1133	g/10min	8
Specific Gravity	ρ	ISO 1183	g/cm ³	1,24
Mechanical	Symbol	Test Method	Unit	Value
Tensile Stress @ Yield	σ_m	ISO 527-2	MPa	35
Tensile Strain @ Break	ϵ_{tB}	ISO 527-2	%	6
Flexural Modulus ¹ @ 23°C	E_f	ISO 178	MPa	5000
Impact	Symbol	Test Method	Unit	Value
Charpy Impact Strength @ 23°C, notched	$a_{I23^\circ C}$	ISO 179/1eA	kJ/m ²	4
Hardness	Symbol	Test Method	Unit	Value
Rockwell Hardness (R-Scale)	HR-R	ISO 2039	-	95
Thermal	Symbol	Test Method	Unit	Value
Volatile Matters	-	GS Method	%	0,1
Ash Content @ 600°C	Ash _{600°C}	ISO 3451	%	40

¹ feed rate 2 mm/min

Notes: Typical properties; not to be constructed as specification

Other Properties

Property	Typical Value	Test Method
Mould average Shrinkage-Flow Direction ³	0,9 %	GS Method
Mould average Shrinkage-Cross Flow Direction ³	0,9 %	GS Method

² Performed on black plaques with rough structure

³ Values may only be used as indication and should not be used directly in mould design without prior validation

Processing Techniques

The actual conditions depends on the type of equipment used.

Injection Moulding

HiPrene HT44T is easy to process with standard injection moulding machines. To avoid residual humidity from transport or storage, the material should be pre-dried approximately 2h at 80°C. Following moulding parameters should be used as guidelines:

Feeding temperature	40 – 80 °C
Mass temperature	210 – 250 °C
Back pressure	Low to medium
Holding pressure	40 – 65 bar
Mould temperature	30 – 50 °C
Screw speed	Low to medium
Injection speed	100 – 200 m/min

Storage

This material should be stored in dry conditions, protected from sunlight and at temperatures below 50 °C.

Contact

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