



HiPrene[®] HT44VE

Polypropylene Compound-Long-Term Thermal Stability-Black Color

Product Description

HiPrene[®] HT44VE is a 40% mineral filled polypropylene compound suitable for injection moulding. This material has excellent Long-Term Thermal Stability and very good balanced mechanical properties. This grade is especially designed for applications where high heat resistance is necessary. This grade is available in black color.

Product Characteristic

Status	Commercial: Active
Test Method Used	ISO
Availibility	Europe
Features	High Heat Resistance High Dimensional Stability High Stiffness Good Processability
Typical Customer Applications	Automotive-Lamp Housing

Typical Properties

Physical	Symbol	Test Method	Unit	Value
Melt Mass-Flow Rate	MFR	ISO 1133	g/10min	13
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	34
Tensile Strain @ Yield	ϵ_{tB}	ISO 527-2	%	3
Flexural Modulus ¹ @ 23°C	E_f	ISO 178	MPa	5000
Impact	Symbol	Test Method	Unit	Value
Charpy Impact Strength @ 23°C, notched	$a_{IN23°C}$	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 HT44VE 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

GS Caltex Czech, s.r.o.

Bohumínská 455/20, Karviná – Staré Město (Nové Pole), 733 01

GPS: N49°52'003", E018°31'078"

Czech republic

tel.: 595 390 703; 595 390 724; 595 390 717