



## HiPrene<sup>®</sup> MT41VD

Polypropylene TPO Compound

### Product Description

*HiPrene<sup>®</sup> MT41VD is a 15% mineral filled, impact modified polypropylene compound suitable for injection moulding. This material has been developed for highly demanding aesthetic automotive application, with perfect scratch resistance and UV stabilization. It is especially suitable for car interior applications requiring ductility, because of its high impact resistance and requiring very high scratch resistance because of location in the car interior. This grade is available in natural or color-matched, pellet form.*

### Product Characteristic

<b>Status</b>	Commercial: Active	
<b>Test Method Used</b>	ISO	
<b>Availability</b>	Europe	
<b>Features</b>	Scratch Resistance	High Impact Resistance
	High Stiffness	Good Processability
<b>Typical Customer Applications</b>	Automotive Interior Parts	

### Typical Properties

Physical	Symbol	Test Method	Unit	Value
Melt Mass-Flow Rate	MFR	ISO 1133	g/10min	12
Specific Gravity	$\rho$	ISO 1183	g/cm <sup>3</sup>	1,02
Mechanical	Symbol	Test Method	Unit	Value
Tensile Stress @ Yield	$\sigma_m$	ISO 527-2	MPa	22
Tensile Strain @ Yield	$\epsilon_{tB}$	ISO 527-2	%	6
Flexural Modulus @ 23°C (2mm/min)	$E_f$	ISO 178	MPa	1750
Impact	Symbol	Test Method	Unit	Value
Charpy Impact Strength @ 23°C, notched	$a_{I23^\circ C}$	ISO 179/1eA	kJ/m <sup>2</sup>	30
Hardness	Symbol	Test Method	Unit	Value
Rockwell Hardness (R-Scale)	HR-R	ISO 2039	-	70
Thermal	Symbol	Test Method	Unit	Value
Heat Deflection Temperature B	$T_f$	ISO 75-2/B	°C	110
Volatile Matters	-	GS Method	%	0,1
Ash Content @ 600°C	Ash <sub>600°C</sub>	ISO 3451	%	16

**Notes:** Typical properties; not to be constructed as specification

## Other Properties

Property	Typical Value	Test Method
Scratch Resistance Test <sup>2</sup>	$\Delta L = 1,2$	acc. PV 3952
Mould average Shrinkage-Flow Direction <sup>3</sup>	0,9%	GS Method
Mould average Shrinkage-Cross Flow Direction <sup>3</sup>	0,9%	GS Method
Odour (80°C, 2 h)	2,4	acc. PV 3900
Emission	< 50 $\mu\text{g}$	VDA 277
Fogging (100°C, 16 h)	< 2 mg	DIN 75201
Flammability	70 mm/min	TL 1010

<sup>2</sup> Performed on black plaques with rough structure

<sup>3</sup> 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 MT41VD* 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
Melt 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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