I am your Energy
GS Caltex Czech, s.r.o.

# HiPrene® MM71T

Polypropylene TPO Compound

## Product Description

*HiPrene® MM71T is a mineral filled, impact modified polypropylene compound suitable for injection moulding. This material has been developed especially for Thin Layer 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 with lesser sharp edge crush during the crush test in car and requiring very high scratch resistance because of location in the car interior. This material is available in natural or color-matched, pellet form.*

## Product Characteristic

| | | |
|---|---|---|
| **Status** | Commercial: Active | |
| **Test Method Used** | ASTM | |
| **Avalilability** | Europe/Asia | |
| **Features** | Scratch Resistance | High Impact Resistance |
| | High Stiffness | Thin Layer Application |
| **Typical Customer Applications** | Automotive Interior Parts-Door Trim | |

## Typical Properties

| **Physical** | | **Symbol** | **Test Method** | **Unit** | **Value** |
|---|---|---|---|---|---|
| | Melt Mass-Flow Rate | MFR | ASTM D1238 | g/10min | **30** |
| | Specific Gravity | ρ | ASTM D792 | g/cm³ | **0,98** |
| **Mechanical** | | **Symbol** | **Test Method** | **Unit** | **Value** |
| | Tensile Stress @ Yield | $\sigma_m$ | ASTM D638 | MPa | **22** |
| | Tensile Strain @ Break | $\varepsilon_{tB}$ | ASTM D638 | % | **100** |
| | Flexural Modulus @ 23°C (2mm/min) | $E_f$ | ASTM D790 | MPa | **2450** |
| **Impact** | | **Symbol** | **Test Method** | **Unit** | **Value** |
| | IZOD Impact Strength @ 23°C | $a_{iN23°C}$ | ASTM D256 | J/m | **350** |
| **Hardness** | | **Symbol** | **Test Method** | **Unit** | **Value** |
| | Rockwell Hardness (R-Scale) | HR-R | ASTM D785 | - | **70** |
| **Thermal** | | **Symbol** | **Test Method** | **Unit** | **Value** |
| | Temperature of Deflection under Load (HDT) | $T_f$ | ASTM D648 | °C | **130** |
| | Volatile Matters | - | GS Method | % | **0,1** |
| | Ash Content @ 600°C | $Ash_{600°C}$ | GS Method | % | **13** |

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

Technical Data Sheet

# Processing Techniques

The actual conditions depends on the type of equipment used.

## Injection Moulding

***HiPrene MM71T*** 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 quidelines:

| | |
|---|---|
| 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

**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