

# ISPLEN® PM 270 BV

Polypropylene Homopolymer

REPSOL

## Message:

Polypropylene homopolymer, 20% mineral fillers reinforced and high melt flow rate.

ISPLEN® PM270 BV gives a high stiffness, and a low warpage and shrinkage behaviour. This product is high heat and UV stabilised.

## APPLICATIONS

Automotive: Under the bonnet parts subjected to high thermal stress (Light housings, heat and ventilation ducts).

Air conditioning elements inside the car.

Technical pieces, in general.

| General Information                       |                              |                   |             |
|-------------------------------------------|------------------------------|-------------------|-------------|
| Filler / Reinforcement                    | Mineral,20% Filler by Weight |                   |             |
| Additive                                  | Heat Stabilizer              |                   |             |
|                                           | UV Stabilizer                |                   |             |
| Features                                  | Heat Stabilized              |                   |             |
|                                           | High Flow                    |                   |             |
|                                           | High Stiffness               |                   |             |
|                                           | Low Shrinkage                |                   |             |
|                                           | Low Warpage                  |                   |             |
| Uses                                      | Automotive Applications      |                   |             |
|                                           | Automotive Under the Hood    |                   |             |
|                                           | Engineering Parts            |                   |             |
| Physical                                  | Nominal Value                | Unit              | Test Method |
| Density                                   | 1.04                         | g/cm <sup>3</sup> | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 12                           | g/10 min          | ISO 1133    |
| Molding Shrinkage <sup>1</sup>            | 0.93 to 0.97                 | %                 | ISO 2577    |
| Hardness                                  | Nominal Value                | Unit              | Test Method |
| Shore Hardness (Shore D, 15 sec)          | 73                           |                   | ISO 868     |
| Mechanical                                | Nominal Value                | Unit              | Test Method |
| Tensile Modulus                           | 2400                         | MPa               | ISO 527-2   |
| Tensile Stress                            |                              |                   | ISO 527-2   |
| Yield                                     | 32.0                         | MPa               |             |
| Break                                     | 25.0                         | MPa               |             |
| Tensile Strain                            |                              |                   | ISO 527-2   |
| Yield                                     | 5.0                          | %                 |             |
| Break                                     | 22                           | %                 |             |
| Flexural Modulus                          | 2600                         | MPa               | ISO 178     |

| Impact                         | Nominal Value | Unit              | Test Method  |
|--------------------------------|---------------|-------------------|--------------|
| Notched Izod Impact Strength   |               |                   | ISO 180      |
| -20°C                          | 1.5           | kJ/m <sup>2</sup> |              |
| 0°C                            | 2.0           | kJ/m <sup>2</sup> |              |
| 23°C                           | 2.7           | kJ/m <sup>2</sup> |              |
| Unnotched Izod Impact Strength |               |                   | ISO 180      |
| -20°C                          | 11            | kJ/m <sup>2</sup> |              |
| 0°C                            | 15            | kJ/m <sup>2</sup> |              |
| 23°C                           | 30            | kJ/m <sup>2</sup> |              |
| Thermal                        | Nominal Value | Unit              | Test Method  |
| Heat Deflection Temperature    |               |                   |              |
| 0.45 MPa, Unannealed           | 109           | °C                | ISO 75-2/B   |
| 1.8 MPa, Unannealed            | 66.0          | °C                | ISO 75-2/A   |
| Vicat Softening Temperature    |               |                   |              |
| --                             | 153           | °C                | ISO 306/A120 |
| --                             | 95.0          | °C                | ISO 306/B120 |
| NOTE                           |               |                   |              |
| 1.                             | 150x100x3mm   |                   |              |

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