

# SANTOPRENE® 121-70B260

## SANTOPRENE®

A medium hard black thermoplastic vulcanizate (TPV) combining a low coefficient of friction with a good bonding to TPV and EPDM rubber. This grade offers excellent processability due to high shear thinning behavior for injection molding of complex geometries and excellent surface aesthetics providing color harmony with extruded profiles, without surface bleeding nor change of friction after heat aging. Santoprene® 121-70B260 TPV has been designed for complex corner molding and end caps of automotive dense extruded weatherseals, either in TPV or in EPDM rubber.

### Key Features

- Specially formulated to replace thermoset EPDM rubber in automotive GRC corner molding applications
- Designed for shorter processing cycle time compared to thermoset EPDM rubber
- Adheres to vulcanized EPDM rubber and TPV
- Built-in low COF properties
- Good flowability with excellent surface aspect

### Product information

|                      |       |           |
|----------------------|-------|-----------|
| Resin Identification | TPV   | ISO 1043  |
| Part Marking Code    | >TPV< | ISO 11469 |

### Typical mechanical properties

|  |         |                        |
|--|---------|------------------------|
| Tensile stress at 100% elongation, perpendicular | 2.6 MPa | ISO 37                 |
| Tensile stress at break, perpendicular           | 6.4 MPa | ISO 527-1/-2 or ISO 37 |
| Elongation at break, perpendicular               | 520 %   | ISO 527-1/-2 or ISO 37 |
| Shore A hardness, 15s                            | 68      | ISO 48-4 / ISO 868     |
| Compression set, 70 °C, 24h                      | 49 %    | ISO 815                |

### Flammability

|                              |           |                      |
|------------------------------|-----------|----------------------|
| FMVSS Class                  | B         | ISO 3795 (FMVSS 302) |
| Burning rate, Thickness 2 mm | 39 mm/min | ISO 3795 (FMVSS 302) |

### Physical/Other properties

|         |                       |          |
|---------|-----------------------|----------|
| Density | 910 kg/m <sup>3</sup> | ISO 1183 |
|---------|-----------------------|----------|

### Injection

|                                 |         |
|---------------------------------|---------|
| Drying Recommended              | yes     |
| Drying Temperature              | 65 °C   |
| Drying Time, Dehumidified Dryer | ≥3 h    |
| Processing Moisture Content     | ≤0.08 % |
| Melt Temperature Optimum        | 220 °C  |
| Min. melt temperature           | 210 °C  |
| Max. melt temperature           | 230 °C  |
| Mold Temperature Optimum        | 50 °C   |
| Min. mould temperature          | 40 °C   |
| Max. mould temperature          | 60 °C   |

# SANTOPRENE® 121-70B260

## SANTOPRENE®

### Characteristics

|                         |  |
|-------------------------|--|
| Processing              | Injection Moulding, Multi Injection Moulding |
| Delivery form           | Pellets                                      |
| Special characteristics | U.V. stabilised or stable to weather         |

### Additional information

|                   |  |
|-------------------|--|
| Injection molding | Holding pressure should be about 50 to 75% of the actual injection pressure.<br>A high screw RPM (100 to 200) is recommended.<br>Back pressure is not always needed, however, a back pressure of 0.3 to 0.7 MPa may be used to ensure a homogeneous melt and maintain a consistent shot size.<br>A higher back pressure is normally employed when using masterbatches. |
|-------------------|--|

### Processing Notes

#### Processing Notes

Desiccant drying for 3 hours at 80°C (180°F) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to 230°C (350 to 450°F) and is incompatible with acetal and PVC.

Santoprene® TPV has a relatively high melt viscosity at low shear rates. Viscosity decreases as the shear rate increases.  
Increasing temperature has little effect on TPV melt viscosity. Smaller gates and higher shear rates keep melt viscosity low and improve melt flow. Please also refer to the injection molding guide.

### Automotive

|            |  |
|------------|--|
| OEM        | ADDITIONAL INFORMATION   |
| Renault    | FRM 18-27-206 /---, No Spec, Special Part Approval, See Your CE Account Manager. |
| SAIC Motor | SMTC 5 320 024   |
| VW Group   | VW 52703   |