

# SANTOPRENE® 121-75M100

## SANTOPRENE®

A soft, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties and chemical resistance for use in difficult injection molding applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding. It is polyolefin based and recyclable within the manufacturing stream.

### Key Features

- Used in glass encapsulation applications
- Designed for fast, easy injection molding, especially for complex part geometries
- Used in sealing applications
- Recommended for applications requiring improved part surface appearance
- UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component

### Product information

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

### Typical mechanical properties

|  |          |                        |
|--|----------|------------------------|
| Tensile stress at 100% elongation, perpendicular | 3.79 MPa | ISO 527-1/-2 or ISO 37 |
| Stress at break, perpendicular                   | 6.59 MPa | ISO 527-1/-2 or ISO 37 |
| Elongation at break, perpendicular               | 441 %    | ISO 527-1/-2 or ISO 37 |
| Brittleness Temperature                          | -60 °C   | ASTM D 746             |
| Shore A hardness, 15s                            | 80       | ISO 48-4 / ISO 868     |
| Compression set, 23 °C                           | 28 %     | ISO 815                |
| Time   | 70 h     |                        |
| Compression set, 70 °C, 24h                      | 42 %     | ISO 815                |
| Tear strength, normal                            | 26 kN/m  | ISO 34-1               |

### Flammability

|                               |          |                 |
|-------------------------------|----------|-----------------|
| Burning Behav. at thickness h | HB class | IEC 60695-11-10 |
| Thickness tested              | 1.1 mm   | IEC 60695-11-10 |
| UL recognition                | yes      | UL 94           |

### Physical/Other properties

|         |                       |          |
|---------|-----------------------|----------|
| Density | 930 kg/m <sup>3</sup> | ISO 1183 |
|---------|-----------------------|----------|

### Injection

|                                 |         |
|---------------------------------|---------|
| Drying Temperature              | 82 °C   |
| Drying Time, Dehumidified Dryer | 3 h     |
| Processing Moisture Content     | ≤0.08 % |
| Max. regrind level              | 20 %    |
| Melt Temperature Optimum        | 215 °C  |
| Min. melt temperature           | 165 °C  |
| Max. melt temperature           | 265 °C  |
| Mold Temperature Optimum        | 50 °C   |
| Min. mould temperature          | 20 °C   |

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|                        |           |
|------------------------|-----------|
| Max. mould temperature | 80 °C     |
| Back pressure          | 0.517 MPa |
| Ejection temperature   | 96 °C     |

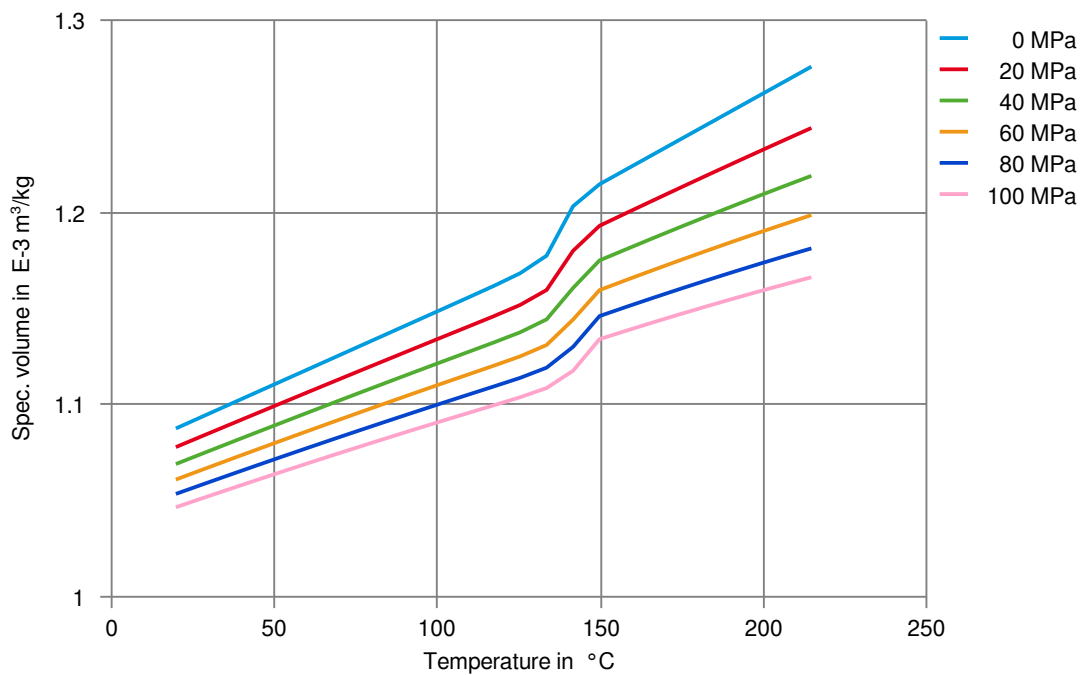
### Additional information

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.

### Specific volume-temperature (pvT)



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