

SANTOPRENE® 273-40

SANTOPRENE®

A hard, colorable, specialty thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. It is designed for use in non fatty food contact applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding, extrusion, blow molding, thermoforming or vacuum forming. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- This product, in principle, can be used in food contact applications in the USA (FDA). Migration or use limitations may apply.
- Certified by NSF to NSF/ANSI Standard 51: Food Equipment Materials - Plastics, materials and components used in food equipment.
- UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component.
- Recommended for applications requiring excellent flex fatigue resistance.

Product information

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

Typical mechanical properties

| | | |
|--|--------|------------------------|
| Tensile stress at 100% elongation, perpendicular | 9 MPa | ISO 37 |
| Stress at break, perpendicular | 18 MPa | ISO 527-1/-2 or ISO 37 |
| Elongation at break, perpendicular | 610 % | ISO 527-1/-2 or ISO 37 |
| Brittleness Temperature | -50 °C | ASTM D 746 |
| Shore D hardness, 15s | 41 | ISO 48-4 / ISO 868 |
| Compression set, 70 °C, 24h | 54 % | ISO 815 |
| Compression set, 125 °C, 70h | 61 % | ISO 815 |

Physical/Other properties

| | | |
|---------|-----------------------|----------|
| Density | 940 kg/m ³ | ISO 1183 |
|---------|-----------------------|----------|

Injection

| | |
|--------------------|-----------|
| Max. regrind level | 20 % |
| Back pressure | 0.517 MPa |

Extrusion

| | |
|---------------------------------|--------|
| Drying Temperature | 82 °C |
| Drying Time, Dehumidified Dryer | 3 h |
| Melt Temperature Range | 210 °C |

Additional information

Processing Notes

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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.

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