# SANTOPRENE® 121-58W175

## SANTOPRENE®

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

## Key Features

- Recommended for applications requiring excellent flex fatigue resistance
- Excellent ozone resistance
- Designed for improved UV resistance
- Designed for extruding thin wall sections with excellent definition (down to 0.33 mm [0.013”] radius) and to maximize run length with minimal build-up of material on screen packs or narrow sections of dies

## Product information

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

## Typical mechanical properties

| | | | |
|---|---|---|---|
| Tensile stress at 100% elongation, perpendicular | 1.99 | MPa | ISO 37 |
| Stress at break, perpendicular | 5.09 | MPa | ISO 527-1/-2 or ISO 37 |
| Elongation at break, perpendicular | 460 | % | ISO 527-1/-2 or ISO 37 |
| Brittleness Temperature | -60 | °C | ASTM D 746 |
| Shore A hardness, 15s | 61 | | ISO 48-4 / ISO 868 |
| Compression set, 70°C, 24h | 27 | % | ISO 815 |
| Compression set, 125°C, 70h | 43 | % | ISO 815 |
| Tear strength, normal | 21 | kN/m | ISO 34-1 |

## Specific Application Suitability

| | | | |
|---|---|---|---|
| Continuous Upper Temperature Resistance, 1000h | 135 | °C | SAE J2236 |

## Electrical properties

| | | | |
|---|---|---|---|
| Relative permittivity, 60Hz | 2.7 | | IEC 62631-2-1 |
| Electric Strength, Short Time, 2mm | 26 | kV/mm | ASTM D 149 |

## Physical/Other properties

| | | | |
|---|---|---|---|
| Density | 970 | kg/m³ | ISO 1183 |

## Extrusion

| | | |
|---|---|---|
| Drying Temperature | 82 | °C |
| Drying Time, Dehumidified Dryer | 3 | h |
| Melt Temperature Range | 177 - 204 | °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

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450°F) and is incompatible with acetal and PVC. Do not exceed 15% drawdown.



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