

SANTOPRENE™ 8281-55MED - TPV

Product Description

A soft, colorable, specialty, non-hygroscopic thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. It is designed for use in medical and healthcare 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.

Characteristics

| | |
|----------------------|--|
| Applications | Seals and Gaskets, Soft Touch Grips |
| Uses | Medical applications |
| Color | Natural color |
| Delivery Form | Pellets |
| Processing | Injection molding, Multi injection molding |

| Physical properties | Value | Unit | Test Standard |
|---------------------|-------|-------------------|---------------|
| Density | 0.92 | g/cm ³ | ASTM D792 |
| Density | 920 | kg/m ³ | ISO 1183 |

| Hardness | Value | Unit |
|---------------------------|-------|------|
| Shore A hardness-TPE, 15s | 59 | |

| Mechanical properties | Value | Unit | Test Standard |
|--|-------|------|---------------|
| Tensile stress at 100%, perpendicular | 2 | MPa | ASTM D412 |
| Tensile stress at 100%, perpendicular | 2 | MPa | ISO 37 |
| Tensile strength at break elast, perpendicular | 5.2 | MPa | ASTM D412 |
| Tensile stress at break, perpendicular | 5.2 | MPa | ISO 37 |
| Elongation at break elast, perpendicular | 430 | % | ASTM D412 |
| Tensile strain at break, perpendicular | 430 | % | ISO 37 |
| Compression set, 23 °C, 168h, Type 1, Method B | 14 | % | ASTM D395 |
| Compression set, 23 °C, 168h, Type A | 14 | % | ISO 815 |

| Injection | Value | Unit |
|---|---------------|------|
| Necessary low maximum residual moisture content | 0.08 | % |
| Suggested maximum regrind | 20 | % |
| Rear temperature | 177 - 191 | °C |
| Middle temperature | 179 - 193 | °C |
| Front temperature | 185 - 199 | °C |
| Nozzle temperature | 185 - 210 | °C |
| Melt temperature | 143 - 216 | °C |
| Mold temperature | 24 - 52 | °C |
| Injection speed | fast | - |
| Back pressure | 0.345 - 0.689 | MPa |
| Screw Speed | 100 - 200 | RPM |
| Clamp tonnage | 41 - 69 | MPa |
| Cushion | 3.18 - 6.35 | mm |
| Screw L/D | 20:1/* | - |
| Screw compression ratio | 2.5:1/* | - |
| Vent depth | 0.025 | mm |

Other text information

Processing Notes

Desiccant drying for 3 hours at 80°C (180°F) can be performed if desired. 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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General Disclaimer

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