



Sarlink® TPV 2774N XRD1

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

Sarlink 2774 is a high performance thermoplastic vulcanizate used in automotive applications. Sarlink 2774 is a medium hardness lubricated grade exhibiting sunlight resistance and UV absorbing characteristics. This grade can be processed by injection molding and extrusion.

General

| | | | |
|-------------------|---|---|--|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East • Asia Pacific | • Europe • Latin America | • North America |
| Features | • Filled • Light Stabilized • Low Density • Low Flow | • Low Specific Gravity • Lubricated • Medium Hardness • Slip | • Sunlight Resistant • UV Absorbing |
| Uses | • Automotive Exterior Trim | • Automotive Interior Parts | • Automotive Interior Trim |
| RoHS Compliance | • RoHS Compliant | | |
| Appearance | • Opaque | | |
| Forms | • Pellets | | |
| Processing Method | • Extrusion | • Injection Molding | |

ASTM & ISO Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|---|---------------|-------------------|-------------|
| Density | 0.960 | g/cm ³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 0.30 | g/10 min | ASTM D1238 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tensile Stress ² | | | ISO 37 |
| Across Flow : 100% Strain | 339 | psi | |
| Flow : 100% Strain | 557 | psi | |
| Tensile Stress ² | | | ISO 37 |
| Across Flow : Break | 798 | psi | |
| Flow : Break | 667 | psi | |
| Tensile Elongation ² | | | ISO 37 |
| Across Flow : Break | 450 | % | |
| Flow : Break | 210 | % | |
| Tear Strength ³ | | | ISO 34-1 |
| Across Flow | 140 | lbf/in | |
| Flow | 140 | lbf/in | |
| Compression Set ⁴ | | | ISO 815 |
| 73°F, 22 hr | 20 | % | |
| 158°F, 22 hr | 32 | % | |
| 194°F, 70 hr | 37 | % | |
| 257°F, 70 hr | 49 | % | |
| Hardness | Nominal Value | Unit | Test Method |
| Shore Hardness | | | ISO 868 |
| Shore A, 1 sec, Injection Molded | 75 | | |
| Shore A, 5 sec, Injection Molded | 71 | | |
| Shore A, 15 sec, Injection Molded | 69 | | |

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| Aging | Nominal Value | Unit | Test Method |
|---|----------------------|-------------|--------------------|
| Change in Tensile Strength in Air ⁵ | | | ISO 188 |
| Across Flow : 230°F, 1008 hr | 2.0 | % | |
| Flow : 230°F, 1008 hr | 0.40 | % | |
| Across Flow : 100% Strain 230°F, 1008 hr | 10 | % | |
| Flow : 100% Strain 230°F, 1008 hr | 8.8 | % | |
| Across Flow : 257°F, 168 hr | 5.5 | % | |
| Flow : 257°F, 168 hr | 2.2 | % | |
| Across Flow : 100% Strain 257°F, 168 hr | 11 | % | |
| Flow : 100% Strain 257°F, 168 hr | 9.1 | % | |
| Change in Tensile Strain at Break in Air ⁵ | | | ISO 188 |
| Across Flow : 230°F, 1008 hr | -5.4 | % | |
| Flow : 230°F, 1008 hr | -17 | % | |
| Across Flow : 257°F, 168 hr | -4.5 | % | |
| Flow : 257°F, 168 hr | -20 | % | |
| Change in Shore Hardness in Air | | | ISO 188 |
| Shore A, 230°F, 1008 hr ⁶ | 1.7 | | |
| Shore A, 230°F, 1008 hr ⁷ | 2.9 | | |
| Shore A, 230°F, 1008 hr ⁸ | 3.1 | | |
| Shore A, 257°F, 168 hr ⁶ | 1.7 | | |
| Shore A, 257°F, 168 hr ⁷ | 2.5 | | |
| Shore A, 257°F, 168 hr ⁸ | 2.9 | | |
| Fill Analysis | Nominal Value | Unit | Test Method |
| Apparent Viscosity (392°F, 206 sec ⁻¹) | 330 | Pa·s | ASTM D3835 |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|---------------|------|
| Rear Temperature | 344 to 416 | °F |
| Middle Temperature | 354 to 426 | °F |
| Front Temperature | 364 to 436 | °F |
| Nozzle Temperature | 374 to 446 | °F |
| Processing (Melt) Temp | 374 to 446 | °F |
| Mold Temperature | 95 to 140 | °F |
| Injection Pressure | 200 to 1000 | psi |
| Injection Rate | Fast | |
| Back Pressure | 25.0 to 125 | psi |
| Screw Speed | 50 to 120 | rpm |
| Cushion | 0.150 to 1.00 | in |

Injection Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

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| Extrusion | Nominal Value | Unit |
|-----------------------|---------------|------|
| Cylinder Zone 1 Temp. | 330 to 400 | °F |
| Cylinder Zone 2 Temp. | 340 to 410 | °F |
| Cylinder Zone 3 Temp. | 350 to 420 | °F |
| Cylinder Zone 5 Temp. | 360 to 430 | °F |
| Die Temperature | 374 to 440 | °F |

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

¹ Typical properties: these are not to be construed as specifications.

² Type 1, 20 in/min

³ Method Ba, Angle (Unnicked), 20 in/min

⁴ Type A

⁵ Type 1

⁶ 1 sec

⁷ 5 sec

⁸ 15 sec