



Thursday, July 25, 2013

Sarlink® TPV 3145D

Units

Teknor Apex Company (Sarlink) - Thermoplastic Vulcanizate

Action

Legend (Open)



General Information

Product Description

SARLINK® 3145D is a high hardness, multi-purpose thermoplastic elastomer featuring excellent resiliency, heat resistance and flex fatigue resistance. SARLINK® 3145D can be processed by injection molding, extrusion and blow molding to produce clamps, grommets, profiles, boots, ducts and bellows.

General

| | | | |
|---------------------------|-------------------------------------|-------------------------------------|--------------------------------------|
| Material Status | ● Commercial: Active | | |
| Availability | ● Asia Pacific | ● North America | |
| | ● Europe | ● South America | |
| Features | ● Fatigue Resistant | ● Medium Heat Resistance | |
| | ● High Hardness | ● Resilient | |
| Uses | ● Grommets | ● Profiles | |
| Automotive Specifications | ● FORD ESB-M4D495-A6 Color: Black | ● FORD WSK-M4D712-A1 Color: Black | ● OPEL QK 3533 Type 3 Color: Black |
| | ● FORD ESB-M4D495-A6 Color: Natural | ● FORD WSK-M4D712-A1 Color: Natural | ● OPEL QK 3533 Type 3 Color: Natural |
| Forms | ● Pellets | | |
| Processing Method | ● Blow Molding | ● Extrusion | ● Injection Molding |

ASTM & ISO Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|-------------------|-------------|
| Density | 0.940 | g/cm ³ | ISO 1183 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tensile Stress | | | ISO 37 |
| Across Flow : 100% Strain | 12.8 | MPa | |
| Flow : 100% Strain | 15.5 | MPa | |
| Tensile Stress | | | ISO 37 |
| Across Flow : Break | 22.5 | MPa | |
| Flow : Break | 19.4 | MPa | |
| Tensile Elongation | | | ISO 37 |
| Across Flow : Break | 700 | % | |
| Flow : Break | 400 | % | |
| Tear Strength - Across Flow ² | 130 | kN/m | ISO 34-1 |
| Compression Set | | | ISO 815 |
| 23°C, 22.0 hr | 57 | % | |
| 70°C, 22.0 hr | 70 | % | |
| 125°C, 70.0 hr | 90 | % | |
| Hardness | Nominal Value | Unit | Test Method |
| Shore Hardness | | | ISO 868 |
| Shore D, 5 sec, Extruded | 47 | | |
| Shore D, 5 sec, Injection Molded | 50 | | |
| Aging | Nominal Value | Unit | Test Method |
| Change in Tensile Strength in Air - Across Flow | | | ISO 188 |
| 135°C, 1000 hr | 2.0 | % | |
| 100% Strain 135°C, 1000 hr | 16 | % | |
| 150°C, 168 hr | -5.0 | % | |
| 100% Strain 150°C, 168 hr | 8.0 | % | |
| Change in Tensile Strain at Break in Air - Across Flow | | | ISO 188 |
| 135°C, 1000 hr | -11 | % | |
| 150°C, 168 hr | -11 | % | |
| Change in Shore Hardness in Air | | | ISO 188 |

| | | |
|---|----------------------|--------------------------------|
| Shore D, 135°C, 1000 hr | 1.0 | |
| Shore D, 150°C, 168 hr | 2.0 | |
| Change in Volume (125°C, 70 hr, in IRM 903 Oil) | 52 % | ISO 1817 |
| Additional Information | Nominal Value | Unit Test Method |
| Apparent Shear Viscosity - Capillary, 206 1/s (200°C) | 310 Pa·s | ISO 11443 |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|----------------------|-------------|
| Rear Temperature | 180 to 215 | °C |
| Middle Temperature | 180 to 215 | °C |
| Front Temperature | 180 to 215 | °C |
| Nozzle Temperature | 187 to 220 | °C |
| Processing (Melt) Temp | 185 to 220 | °C |
| Mold Temperature | 10.0 to 55.0 | °C |
| Back Pressure | 0.100 to 1.00 | MPa |
| Screw Speed | 100 to 200 | rpm |
| Extrusion | Nominal Value | Unit |
| Cylinder Zone 1 Temp. | 180 to 200 | °C |
| Cylinder Zone 2 Temp. | 180 to 205 | °C |
| Cylinder Zone 3 Temp. | 187 to 210 | °C |
| Cylinder Zone 4 Temp. | 187 to 210 | °C |
| Melt Temperature | 195 to 215 | °C |
| Die Temperature | 195 to 215 | °C |
| Take-Off Roll | 20.0 to 50.0 | °C |

Extrusion Notes

Screen Pack: 20 to 60 mesh
Screw : general purpose
Compression Ratio: 3:1

Notes

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

² Method Ba, Angle (Unnicked)

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