

Teknor Apex Sarlink® TPV 4785B40 Thermoplastic Vulcanizate

Categories: [Polymer](#); [Thermoplastic](#); [Elastomer, TPE](#); [Thermoplastic Vulcanizate Elastomer \(TPV\)](#)

Material Notes: Sarlink TPV 4700 Series are very high flow injection molding engineering grades with excellent UV resistance, elasticity, and surface aesthetics designed for demanding automotive applications including window encapsulation and exterior parts. This product is a black, medium hardness, low density thermoplastic vulcanizate suited for injection molding applications that require superior flow properties.

Availability: Africa & Middle East; Asia Pacific; Europe; Latin America; North America

Additive: UV Stabilizer

Features: Chemical Resistant; Good Flexibility; Good Processability; High Flow; High Heat Resistance; Low Density; Low Specific Gravity; High Hardness; Low Compression Set

Uses: Automotive Applications; Automotive Exterior Parts; Automotive Window Encapsulation; Rubber Replacement

RoHS Compliance: RoHS Compliant






Automotive Specifications: GM GMW15812P-TPV(EPMD+PP) Type 8M Color: Black; VAG VW501 23 Color: Black

Form: Pellets

Processing Method: Injection Molding

Information provided by Teknor Apex

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

| Physical Properties | Metric | English | Comments |
|--|--|--|--|
| Density | 0.910 g/cc | 0.0329 lb/in ³ | ISO 1183 |
| Viscosity | 190 cP @Shear Rate 206 1/s, Temperature 200 °C | 190 cP @Shear Rate 206 1/s, Temperature 392 °F | Shear, Capillary; ASTM D3835 |
| Mechanical Properties | Metric | English | Comments |
| Hardness, Shore A  | 84 @Time 5.00 sec | 84 @Time 0.00139 hour | Extruded; ASTM D2240 |
| | 86 @Time 5.00 sec | 86 @Time 0.00139 hour | Injection Molded; ASTM D2240 |
| Tensile Strength at Break  | 8.89 MPa | 1290 psi | Flow; ASTM D412 |
| | 9.51 MPa | 1380 psi | Across Flow; ASTM D412 |
| | 8.56 MPa @Treatment Temp. 150 °C, Time 605000 sec | 1240 psi @Treatment Temp. 302 °F, Time 168 hour | Across Flow, Change in Air; ISO 188 |
| | 9.13 MPa @Treatment Temp. 135 °C, Time 3.60e+6 sec | 1320 psi @Treatment Temp. 275 °F, Time 1000 hour | Across Flow, Change in Air; ISO 188 |
| Tensile Stress at Strain  | 4.80 MPa @Strain 100 % | 696 psi @Strain 100 % | Across Flow; ISO 37 |
| | 5.50 MPa @Strain 100 % | 798 psi @Strain 100 % | Flow; ISO 37 |
| | 5.13 MPa @Strain 100 %, Treatment Temp. 150 °C | 745 psi @Strain 100 %, Treatment Temp. 302 °F | Across Flow, Change in Air at 168 hr; ISO 188 |
| | 5.23 MPa @Strain 100 %, Treatment Temp. 135 °C | 759 psi @Strain 100 %, Treatment Temp. 275 °F | Across Flow, Change in Air at 1000 hr; ISO 188 |
| Elongation at Break  | 450 % | 450 % | Flow; ASTM D412 |
| | 540 % | 540 % | Across Flow; ASTM D412 |
| | 443 % @Treatment Temp. 150 °C, Time 605000 sec | 443 % @Treatment Temp. 302 °F, Time 168 hour | Across Flow, Change in Air; ISO 188 |
| | 464 % @Treatment Temp. 135 °C, Time 3.60e+6 sec | 464 % @Treatment Temp. 275 °F, Time 1000 hour | Across Flow, Change in Air; ISO 188 |
| Tear Strength | 40.3 kN/m | 230 pli | Method Ba, Angle (Unnicked); ISO 34-1 |
| Compression Set  | 32 % @Temperature 22.8 °C, Time 79200 sec | 32 % @Temperature 73.0 °F, Time 22.0 hour | ISO 815 |
| | 44 % @Temperature 70.0 °C, Time 79200 sec | 44 % @Temperature 158 °F, Time 22.0 hour | ISO 815 |

72 %
@Temperature 125 °C,
Time 252000 sec

72 %
@Temperature 257 °F,
Time 70.0 hour

ISO 815

| Processing Properties | Metric | English | Comments |
|---------------------------|----------------|---------------|-----------|
| Processing Temperature | 182 - 232 °C | 360 - 450 °F | Injection |
| Rear Barrel Temperature | 177 - 216 °C | 350 - 420 °F | Injection |
| Middle Barrel Temperature | 177 - 216 °C | 350 - 420 °F | Injection |
| Front Barrel Temperature | 177 - 216 °C | 350 - 420 °F | Injection |
| Nozzle Temperature | 188 - 221 °C | 370 - 430 °F | Injection |
| Mold Temperature | 10.0 - 65.6 °C | 50.0 - 150 °F | Injection |
| Drying Temperature | 82.2 °C | 180 °F | |
| Dry Time | 3.00 hour | 3.00 hour | |
| Screw Speed | 100 - 200 rpm | 100 - 200 rpm | Injection |

Descriptive Properties

| | |
|------------|-------|
| Appearance | Black |
|------------|-------|

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.