

## Teknor Apex Telcar® TL-1000-92-UV Thermoplastic Elastomer

Category : Polymer , Thermoplastic , Elastomer, TPE

### Material Notes:

Uses: Automotive Applications; Automotive Exterior Parts; Automotive Exterior Trim; Automotive Interior Parts; Blow Molding Applications;

General Purpose; Grommets; Weatherstripping Automotive Specifications: Chrysler MS-DB590 CPN4062 Forms: Pellets Processing

Method: Extrusion; Injection Molding Injection Notes: Injection Rate: Moderate-Fast Extrusion Notes: Screw Speed: 30 to 100

rpm Information Provided by Teknor Apex

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Teknor-Apex-Telcar-TL-1000-92-UV-Thermoplastic-Elastomer.php](http://www.lookpolymers.com/polymer_Teknor-Apex-Telcar-TL-1000-92-UV-Thermoplastic-Elastomer.php)

| Physical Properties   | Metric                               | English                              | Comments   |
|-----------------------|--------------------------------------|--------------------------------------|------------|
| Specific Gravity      | 0.920 g/cc                           | 0.920 g/cc                           | ASTM D792  |
| Linear Mold Shrinkage | 0.011 cm/cm                          | 0.011 in/in                          | ASTM D955  |
|                       | 0.013 cm/cm                          | 0.013 in/in                          | ASTM D955  |
| Melt Flow             | 2.00 g/10 min                        | 2.00 g/10 min                        | ASTM D1238 |
|                       | @Load 2.16 kg,<br>Temperature 230 °C | @Load 4.76 lb,<br>Temperature 446 °F |            |

| Mechanical Properties   | Metric                | English               | Comments                     |
|-------------------------|-----------------------|-----------------------|------------------------------|
| Hardness, Shore D       | 42                    | 42                    | 10 seconds; ASTM D2240       |
| Tensile Stress          | 8.41 MPa              | 1220 psi              | 2.0 in/min; ASTM D412        |
|                         | @Strain 100 %         | @Strain 100 %         |                              |
| Tensile Strength, Yield | 8.55 MPa              | 1240 psi              | 2.0 in/min; ASTM D412        |
|                         | @Strain 300 %         | @Strain 300 %         |                              |
| Elongation at Break     | 7.58 MPa              | 1100 psi              | Type 1, 20 in/min; ASTM D638 |
|                         | 10.3 MPa              | 1490 psi              |                              |
| Elongation at Yield     | 140 %                 | 140 %                 | 20 in/min; ASTM D412         |
|                         | 550 %                 | 550 %                 |                              |
| Flexural Modulus        | 16 %                  | 16 %                  | Type 1, 20 in/min; ASTM D638 |
|                         | 0.290 GPa             | 42.1 ksi              |                              |
| Izod Impact, Notched    | NB                    | NB                    | ASTM D624                    |
|                         | @Temperature -40.0 °C | @Temperature -40.0 °F |                              |
|                         | 33.9 J                | 25.0 ft-lb            |                              |

| <b>Gardner Impact<br/>Mechanical Properties</b> | <b>Metric</b><br>@ Temperature -30.0 °C | <b>English</b><br>@ Temperature -22.0 °F | <b>ASTM D3029<br/>Comments</b> |
|---|---|--|--------------------------------|
| Tensile Impact Strength                         | 470 kJ/m <sup>2</sup>                   | 224 ft-lb/in <sup>2</sup>                | ASTM D1822                     |
|   | >= 470 kJ/m <sup>2</sup>                | >= 224 ft-lb/in <sup>2</sup>             | ASTM D1822                     |
| Tear Strength                                   | 63.8 kN/m                               | 364 pli                                  | Die C; ASTM D1004              |

| <b>Thermal Properties</b>                      | <b>Metric</b>                                  | <b>English</b>                                    | <b>Comments</b>       |
|--|--|---|-----------------------|
| CTE, linear, Parallel to Flow                  | 119 µm/m-°C<br>@Temperature -30.0 -<br>30.0 °C | 66.0 µin/in-°F<br>@Temperature -22.0 -<br>86.0 °F | ASTM D696             |
| CTE, linear, Transverse to Flow                | 117 µm/m-°C<br>@Temperature -30.0 -<br>30.0 °C | 65.0 µin/in-°F<br>@Temperature -22.0 -<br>86.0 °F | ASTM D696             |
| Deflection Temperature at 0.46 MPa<br>(66 psi) | 62.8 °C  | 145 °F  | Unannealed; ASTM D648 |
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 40.6 °C  | 105 °F  | Unannealed; ASTM D648 |
| Glass Transition Temp, Tg                      | -55.9 °C                                       | -68.6 °F  | DSC                   |

| <b>Processing Properties</b> | <b>Metric</b>     | <b>English</b>  | <b>Comments</b>        |
|------------------------------|-------------------|-----------------|------------------------|
| Rear Barrel Temperature      | 171 - 193 °C      | 340 - 380 °F    |                        |
| Middle Barrel Temperature    | 177 - 199 °C      | 350 - 390 °F    |                        |
| Front Barrel Temperature     | 182 - 204 °C      | 360 - 400 °F    |                        |
| Nozzle Temperature           | 188 - 210 °C      | 370 - 410 °F    |                        |
| Zone 1                       | 166 - 188 °C      | 330 - 370 °F    |                        |
| Zone 2                       | 171 - 193 °C      | 340 - 380 °F    |                        |
| Zone 3                       | 177 - 199 °C      | 350 - 390 °F    |                        |
| Zone 5                       | 182 - 204 °C      | 360 - 400 °F    |                        |
| Die Temperature              | 190 - 210 °C      | 374 - 410 °F    |                        |
| Melt Temperature             | 188 - 210 °C      | 370 - 410 °F    | Processing Temperature |
| Mold Temperature             | 25.0 - 65.6 °C    | 77.0 - 150 °F   |                        |
| Injection Pressure           | 1.38 - 6.89 MPa   | 200 - 1000 psi  |                        |
| Back Pressure                | 0.172 - 0.345 MPa | 25.0 - 50.0 psi |                        |

| Processing Properties | Metric 2.54 cm | English 1.00 in | Comments |
|-----------------------|----------------|-----------------|----------|
| Screw Speed           | 50 - 100 rpm   | 50 - 100 rpm    |          |

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China