

## Lubrizol Advanced Materials PEARLTHANE® 11T98 Thermoplastic Polyurethane Elastomer

Category : Polymer , Thermoplastic , Polyurethane, TP , Thermoplastic Polyurethane (TPUR), Polyester Grade

### Material Notes:

PEARLTHANE® 11T98 is a polycaprolactone copolyester based TPU, supplied in form of translucent, colorless pellets, combining high hardness with excellent mechanical properties. It can be extruded and injection-molded. PEARLTHANE® 11T98 when extruded, is used for making tubing, profiles and a variety of technical parts. When processed by injection molding, can be used for making sport shoe soles (football, golf shoes), wheels, seals, etc. All information provided by Merquinsa

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lubrizol-Advanced-Materials-PEARLTHANE-11T98-Thermoplastic-Polyurethane-Elastomer.php](http://www.lookpolymers.com/polymer_Lubrizol-Advanced-Materials-PEARLTHANE-11T98-Thermoplastic-Polyurethane-Elastomer.php)

| Physical Properties | Metric                       | English                      | Comments  |
|---------------------|------------------------------|------------------------------|-----------|
| Specific Gravity    | 1.18 g/cc                    | 1.18 g/cc                    | ASTM D792 |
| Melt Flow           | 10 g/10 min<br>@Load 21.6 kg | 10 g/10 min<br>@Load 47.6 lb |           |

| Mechanical Properties   | Metric  | English  | Comments                            |
|-------------------------|---|--|-------------------------------------|
| Hardness, Shore A       | 98  | 98   | ASTM D2240                          |
| Hardness, Shore D       | 52  | 52   | ASTM D2240                          |
| Tensile Strength, Yield | 40.1 MPa  | 5810 psi   | ASTM D412                           |
| Elongation at Break     | 470 %   | 470 %  | ASTM D412                           |
| 100% Modulus            | 0.01603 GPa   | 2.325 ksi  | ASTM D412                           |
| 300% Modulus            | 0.02906 GPa   | 4.215 ksi  | ASTM D412                           |
| Tear Strength           | 175 kN/m  | 1000 pli   | ASTM D624 (Die C)                   |
| Abrasion                | 25  | 25   | loss (mm <sup>3</sup> ); DIN 53.516 |
| Compression Set         | 32 %<br>@Temperature 22.8<br>°C,<br>Time 252000 sec | 32 %<br>@Temperature 73.0<br>°F,<br>Time 70.0 hour | ASTM D395                           |
|                         | 42 %<br>@Temperature 70.0<br>°C,<br>Time 86400 sec  | 42 %<br>@Temperature 158 °F,<br>Time 24.0 hour     | ASTM D395                           |

| Thermal Properties | Metric | English | Comments |
|--------------------|--------|---------|----------|
|--------------------|--------|---------|----------|

| <b>Melting Point</b><br>Thermal Properties | <b>193 - 203 Â°C</b><br>Metric | <b>379 - 397 Â°F</b><br>English | <b>MQSA 111</b><br>Comments |
|--|--------------------------------|---------------------------------|-----------------------------|
| Glass Transition Temp, Tg                  | -30.0 Â°C                      | -22.0 Â°F                       | DSC, 10Â°C/min; DIN 51.007  |

| <b>Processing Properties</b> | <b>Metric</b> | <b>English</b> | <b>Comments</b> |
|------------------------------|---------------|----------------|-----------------|
| Feed Temperature             | 196 Â°C       | 385 Â°F        |                 |
| Nozzle Temperature           | 204 Â°C       | 400 Â°F        |                 |
| Zone 1                       | 170 - 200 Â°C | 338 - 392 Â°F  |                 |
| Zone 2                       | 180 - 210 Â°C | 356 - 410 Â°F  |                 |
| Zone 3                       | 190 - 215 Â°C | 374 - 419 Â°F  |                 |
| Zone 4                       | 200 - 220 Â°C | 392 - 428 Â°F  |                 |
| Die Temperature              | 215 - 220 Â°C | 419 - 428 Â°F  |                 |
| Mold Temperature             | 35.0 Â°C      | 95.0 Â°F       |                 |
| Moisture Content             | <= 0.10 %     | <= 0.10 %      | MQSA 44         |

| <b>Descriptive Properties</b> | <b>Value</b> | <b>Comments</b> |
|-------------------------------|--------------|-----------------|
| Compression Zone              | 205Â°C       |                 |
| Metering Zone                 | 215Â°C       |                 |

## 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