OVERVIEW

Lubrizol’s aliphatic TPU (thermoplastic polyurethane) combines durability and aesthetic properties in one single material. This innovative product series is perfect for colored or transparent applications where non-yellowing, durability and weatherability are key performance requirements. Designers, manufacturers and OEMs (original equipment manufacturers) can also rely on the aliphatic TPU range to meet the aesthetic demands of light and dark colored parts for a rich, colorful end product. A Bio-based* solution is in development.

BENEFITS

- Color stability upon UV exposure
- Processed through co-extrusion or injection molding
- Excellent stain resistance
- Non-yellowing appearance
- Long-term performance for superior abrasion and scratch resistance
- Cost-effective manufacturing solutions (fast-cycling, high-flow or low-density grades)
- Superior chemical resistance
- Excellent flexibility, elastic/rebound and resilience properties
- Hypoallergenic and odorless

INDUSTRIAL APPLICATIONS

- Automotive interiors Textile
- Various molded parts
- Consumer goods and appliances
- Housing/Overmolded grips

SPORTS & RECREATION APPLICATIONS

- Goggles
- Watchbands

ELECTRONIC APPLICATIONS

- Smartphones
- Headphones
- Protective cases

*Bio-based content is theoretical and is being determined according to ASTM-D6866.
**TOP PRODUCT SELECTIONS**

Aliphatic TPU innovations listed per applications / grades include:

<table>
<thead>
<tr>
<th>Product</th>
<th>Hardness</th>
<th>Density*</th>
<th>Tensile Strength</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estane® D91T80 NAT 01</td>
<td>81 Shore A</td>
<td>1.11</td>
<td>25</td>
<td>Molded Parts</td>
</tr>
<tr>
<td>Pearlthane™ 91T85</td>
<td>88 Shore A</td>
<td>1.11</td>
<td>27</td>
<td>Molded Parts</td>
</tr>
<tr>
<td>Estane® D91T86 NAT 01</td>
<td>88 Shore A</td>
<td>1.12</td>
<td>34</td>
<td>Molded Parts</td>
</tr>
<tr>
<td>Pearlcoat™ Activa D198K</td>
<td>70 Shore A</td>
<td>1.10</td>
<td>25</td>
<td>Low-Gloss Molded and Co-Extruded Parts</td>
</tr>
</tbody>
</table>

*Density values via ISO test method

ALIPHATIC TPUs PROVIDE EXCELLENT UV resistance for light colors as shown below:

![Graph showing UV resistance for light colors](image)

450 W/m2 @40°C