Estane® TRX TPU

Automation
• Reduced labor cost by thermoplastic injection molding
• Automated production possibility versus traditional rubber outsole molding

Sustainability
• Recycling possibilities at outsole manufacturing and post with thermoplastic TPU which thermoset rubbers cannot provide

Performance
• Exceptional slip resistance at wet ground condition
• Excellent wear resistance at room and high temperature against heat friction on the shoe outsole
• Transparent outsole enhancing color freedom for novel design.
• Thinner TPU outsole improves flexible outsole feeling and weight reduction
### ESTANE® TRX PRODUCT PORTFOLIO

<table>
<thead>
<tr>
<th>Estane® Product</th>
<th>Hardness (Shore A)</th>
<th>Tensile Strength (MPa)</th>
<th>Elongation (%)</th>
<th>Tear Strength (kN/m)</th>
<th>DIN abrasion (cc loss)</th>
<th>Haze</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRX 70</td>
<td>74</td>
<td>22</td>
<td>950</td>
<td>65</td>
<td>43</td>
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<tr>
<td>TRX 65*</td>
<td>69</td>
<td>25</td>
<td>1000</td>
<td>73</td>
<td>73</td>
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<td>TRX 75*</td>
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<td>875</td>
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<td>45</td>
<td>8.35</td>
</tr>
</tbody>
</table>

*Under development

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**DIN ABRASION AT ROOM TEMPERATURE AND HIGH TEMPERATURE**

- **CC Loss**
  - TRX70
  - Standard Estane TPU
  - Blue Tint Clear Rubber
  - Solid Black Rubber

- **Coefficient of Friction (COF)**
  - Kinetic COF (Dry)
  - Kinetic COF (Wet)
  - Wet/Dry

*Smooth Surface Specimen against SATRA clay tile