ABS/TPU (acrylonitrile butadiene styrene/thermoplastic polyurethane)

ABS/TPU plastic sheets are multi-layer sheets with soft surface layer of thermoplastic polyurethane (TPU) and acrylonitrile butadiene styrene (ABS) to provide high wear resistance, scratch resistance, petrol- & machine oil resistance. The bottom ABS layer ensures good quality forming and high impact strength of sheets, along with their low temperature resistance. The parts made of ABS/TPU sheets feature mat surface, smooth to the touch. ABS/TPU plastic sheets can be in variety of colors and color shades.

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>Test method, ISO</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>g/sm³</td>
<td>1183</td>
<td>1.06</td>
</tr>
<tr>
<td>Yield stress</td>
<td>mPa</td>
<td>527</td>
<td>28</td>
</tr>
<tr>
<td>Tensile strain at break</td>
<td>%</td>
<td>527</td>
<td>10</td>
</tr>
<tr>
<td>Charpy unnotched impact strength @ 23°C</td>
<td>kJ/m²</td>
<td>179</td>
<td>n/a</td>
</tr>
<tr>
<td>Charpy unnotched impact strength @ -20°C</td>
<td>kJ/m²</td>
<td>179/1epA</td>
<td>n/a</td>
</tr>
<tr>
<td>Heat deflection temperature @ 1.80 MPa (HDT)</td>
<td>°C</td>
<td>75-2Ae</td>
<td>94</td>
</tr>
<tr>
<td>Vicat softening temperature @ 50H/50°C</td>
<td>°C</td>
<td>306/B50</td>
<td>94</td>
</tr>
</tbody>
</table>

All above values apply to thermoplastics immediately after extrusion, with no aging effect.

**Chemical fastness:**
- good weatherability,
- high resistance to oils,
- fats,
- lubricants and many thinners.

**Physical properties:**
- good hardness,
- stability to temperature variation,
- exceptional weatherability.

**Operation temperature:**
maximum temperature during long-term operation is 75-80°C.

**Processing methods:**
- pressing;
- pneumatic vacuum molding;
- machining;
- welding;
- cementing.

**Scope of application:**
These materials can be used for making thermally formed parts of vehicle & bus interior trim, food trays for railroad and aircraft, as well as for finishing and facing works.