Oliver Kluge, Application specialist

“We are looking forward to introducing the world’s first TPEs for medical applications in composites with polyamides – including transparent PA12. The compounds are fully certified and suitable for a variety of attractive medical devices, including those used for in vitro diagnostics.”

Our Know-how – Your Advantage

The MC/AD/PA series is the solution for applications requiring a full-scale Medical Grade Plastic with basic medical approvals such as ISO 10993-5 and -10. The series is characterized by its excellent adhesion to various polyamides. The compounds are available in natural color and they are produced exclusively on a special medical unit.

- High mechanical properties and outstanding tear resistance
- Very low abrasion loss
- Reliable adhesion and cohesive break to PA6, PA12 and transparent PA
- Fulfill all aspects of the VDI 2017 guideline for MGPs
- Direct food contact grade
  - US FDA CFR 21 (raw material conformity)
  - Regulation (EU) No 10/2011
- Medical regulations and approvals
  - ISO 10993-4 (Hemolysis)
  - ISO 10993-5 (Cytotoxicity)
  - ISO 10993-10 (Intracutaneous injection)
  - ISO 10993-11 (Acute systemic toxicity)
- Thermoplastic processing
- Sterilizable (β-/γ-/radiation 2x35kGy, EtO)
- Very good colorability
- KRAIBURG TPE Medical Service Package

Typical Applications

- Soft touch application (e.g. handle or push button)
- Flexible connections
- Membranes

Technical Data

<table>
<thead>
<tr>
<th>MC/AD/PA Series</th>
<th>TM6APO</th>
<th>TM7APO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness Shore A</td>
<td>58</td>
<td>70</td>
</tr>
<tr>
<td>Density g/cm³</td>
<td>0.99</td>
<td>1.01</td>
</tr>
<tr>
<td>Tensile strength MPa</td>
<td>8.0</td>
<td>8.5</td>
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<tr>
<td>Elongation at break %</td>
<td>650</td>
<td>460</td>
</tr>
<tr>
<td>Tear resistance N/mm</td>
<td>14.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Abrasion loss DIN ISO 4649 – 10 N mm³</td>
<td>50</td>
<td>48</td>
</tr>
<tr>
<td>Adhesion to PA6 N/mm</td>
<td>4.5 (B/D)</td>
<td>5.0 (B)</td>
</tr>
<tr>
<td>Adhesion to PA12 N/mm</td>
<td>4.0 (B/D)</td>
<td>6.5 (B/D)</td>
</tr>
<tr>
<td>Adhesion to PA12 after 2 sterilization cycles with EtO N/mm</td>
<td>4.9 (B/D)</td>
<td>5.5 (B/D)</td>
</tr>
<tr>
<td>Adhesion to PA12 after 2 sterilization cycles with γ radiation (35 kGy) N/mm</td>
<td>5.9 (B/D)</td>
<td>6.0 (B)</td>
</tr>
</tbody>
</table>

TALK TO OUR EXPERTS!

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