**Task:**

<table>
<thead>
<tr>
<th>Application field:</th>
<th>Biology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material:</td>
<td>Textile, cotton and linen</td>
</tr>
<tr>
<td>Feed size:</td>
<td>10 - 20 mm (pre-cut with a pair of scissors)</td>
</tr>
<tr>
<td>Feed quantity:</td>
<td>4 g</td>
</tr>
<tr>
<td>Material specification(s):</td>
<td>fibrous</td>
</tr>
<tr>
<td>Customer requirement(s):</td>
<td>&lt; 150 µm</td>
</tr>
<tr>
<td>Subsequent analysis:</td>
<td>GC Gas Chromatography</td>
</tr>
</tbody>
</table>

**Solution:**

<table>
<thead>
<tr>
<th>Selected instrument(s):</th>
<th>Mixer Mill MM 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration(s):</td>
<td>Grinding jar stainless steel 50 ml, screw top design; 12 grinding balls of stainless steel ø 10 mm</td>
</tr>
<tr>
<td>Parameter(s):</td>
<td>Frequency 30/s</td>
</tr>
<tr>
<td>Time:</td>
<td>5 min. (per sample)</td>
</tr>
<tr>
<td>Achieved result(s):</td>
<td>approx. &lt; 150 µm, acc. to the reference sample</td>
</tr>
<tr>
<td>Remark(s):</td>
<td></td>
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</tbody>
</table>

**Recommendation:** For fine grinding of different textile samples the Mixer Mill MM 400 is suitable under the above mentioned conditions.
Pictures of the sample

**Fig. 1:** Original sample of cotton, with pre-cut pieces

**Fig. 2:** Original sample of linen, with pre-cut pieces

**Fig. 3:** After fine grinding in Mixer Mill MM 400

**Fig. 4:** After fine grinding in Mixer Mill MM 400

**Fig. 5:** Reference sample of cotton

**Fig. 6:** Reference sample of linen

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