SM412
Elastomeric Material

Technical Data Sheet

General Information
SM412 is formulated to work with DLP and SLA 3D printers using 385-405 nm light. It is specifically tuned to print on the Autodesk Ember printer. SM412 will extend the window lifetime of the Ember and other printers that use PDMS windows. This resin is recommended for applications where high elongation and low modulus are required. SM412 is offered in black.

Chemical Data

<table>
<thead>
<tr>
<th></th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (cps)</td>
<td>Brookfield SP #31</td>
</tr>
<tr>
<td>@25 °C</td>
<td>900</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>Fresh Print</th>
<th>Post-cured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Modulus (mPa)</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Tensile Strength (mPa)</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Elongation (%)</td>
<td>70</td>
<td>150</td>
</tr>
</tbody>
</table>

Recommended Ember Print Parameters for 50 μm layers

First layer
- Wait before exposure: 15 s
- Exposure: 8 s
- Separation and approach velocity: 4 rpm

Burn in layer
- Wait before exposure: 10 s
- Exposure: 4 s
- Separation and approach velocity: 4 rpm

Model layer
- Wait before exposure: 3 s
- Exposure: 2.2 s
- Separation and approach velocity: 7 rpm

Print parameters may require modification based on the geometry of the printed part.

Post Cure Procedure
Parts should be post cured under a broad band, UV light for 10 minutes on a side at 30 mW/cm² to bring the parts up to their full properties. Properties will vary with different post cure treatments.

To the best of our knowledge the information contained herein is accurate. However, CPS makes no warranty, expressed or implied, regarding the accuracy of these results to be obtained from the use thereof.