Super cool!

Elastocoat® C –
the new spray gel with
cooling effect for bedding
applications
Elastocoat® C
The new spray gel with cooling effect for bedding application by BASF.

SPRAY COOL & RELAX.

Sleep plays a vital role in good health and well-being throughout your life. Getting enough quality sleep at the right times can help protect your mental and physical health and quality of life.

A decisive factor for getting a good night’s sleep is the selection of the right mattresses. Foams play a popular and important role in today’s mattresses, whether as support core or as pressure-relieving comfort layers. Foamers are always looking for solutions to increase the comfort properties via an improved humidity- and heat management for a mattress. A stronger cool touch on a mattress top layer addresses the latter. Today’s technical offerings are casted gel mats, PCM (Phase-Change-Material) in foam matrix or gel particles. Some achieve a good cool touch but lack in good processing others have problems to achieve that high pronounced cool touch.

With Elastocoat® C – a spray gel – BASF offers a solution that achieves a strong cool touch and at the same time is easy to process.
The spray gel has a very pleasant and soft touch. It is so flexible that you don’t feel a hardness increase at low deformation (25%). If it comes to higher deformation (65%) you even feel a stronger support. This can be described by the SAG factor (ILD 65%/ILD 25%) when comparing a CosyPUR® Supersoft foam with spray gel (SAG=3.6) and w/o spray gel layer (2.6).
### Energy absorption of different material compositions

<table>
<thead>
<tr>
<th>Compositions</th>
<th>Energy Absorbed (kJ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PU foam</td>
<td>Q = 0.9 kJ</td>
</tr>
<tr>
<td>PU foam + Elastocoat® C</td>
<td>Q = 4.3 kJ</td>
</tr>
<tr>
<td>PU foam + Elastocoat® C + PCM</td>
<td>Q = 26.3 kJ</td>
</tr>
</tbody>
</table>

### Mechanical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Standard</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>DIN EN ISO 1183-1</td>
<td>kg/m³</td>
</tr>
<tr>
<td>Hardness Shore A</td>
<td>DIN EN ISO 7619-1</td>
<td></td>
</tr>
<tr>
<td>Tensile strength</td>
<td>DIN EN ISO 527 (S2)</td>
<td>N/mm²</td>
</tr>
<tr>
<td>Elongation @ break</td>
<td>DIN EN ISO 527 (S2)</td>
<td>%</td>
</tr>
<tr>
<td>Tear resistance</td>
<td>DIN EN ISO 34-1 B (b)</td>
<td>N/mm²</td>
</tr>
</tbody>
</table>
New Product/ Processing/Advantages

New Product

- Differentiation from current market solutions by maximum cooling effect
- Combine cooling effect on the surface of the mattress to have maximum efficiency with an easy-to-implement process
- Boost cooling effect with PCM

Spray Process:

- Applicable on various PU foams
- Easy to apply on pre-defined areas
- Gel thickness variable (0.2 – 4 mm)
- Tack-free time ~ 4 minutes at 2 mm thickness gel layer possible
- Automated process
- Well-suited for bedding industry

PU-Matrix:

- Compact PU
- Very flexible
- Phthalate-free
- Fulfills criteria for OEKO TEX 100
- Gel-system
- Pleasant touch
- Obvious and effective cooling effect
Note
The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. (May 2019)