Challenge Narrow Border Designs

Further unique design for display brings many requirements for display structural bonding. The frame gets thinner and has narrower border to the screen, and use many dissimilar materials. For even those unique designs, Henkel can offer suitable and benefitable structural bonding solutions.

Display Structural Bonding Broad Product Portfolio

As a globally leading adhesive company, Henkel’s one or two component structural bonding solutions can be supplied with a range of curing mechanisms, designed to offer flexibility in your assembly process.
**Product Portfolio**

<table>
<thead>
<tr>
<th></th>
<th>MS polymer</th>
<th>Polyurethane</th>
<th>PUR Hotmelt</th>
<th>Silicone</th>
<th>Acrylic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technology</strong></td>
<td>1K or 2K</td>
<td>2K</td>
<td>1K</td>
<td>2K</td>
<td>1K</td>
</tr>
<tr>
<td><strong>Application temperature</strong></td>
<td>RT</td>
<td>RT</td>
<td>Heat</td>
<td>RT</td>
<td>RT</td>
</tr>
<tr>
<td><strong>Open time</strong></td>
<td>Short (2K) to mid (1K)</td>
<td>Short</td>
<td>Variable</td>
<td>Short</td>
<td>Unlimited</td>
</tr>
<tr>
<td><strong>Curing mechanism</strong></td>
<td>Moisture (1K) or moisture (2K)</td>
<td>Chemical</td>
<td>Physical setting and moisture</td>
<td>Moisture (1K) or Chemical (2K)</td>
<td>UV</td>
</tr>
<tr>
<td><strong>Fixture &amp; Curing time</strong></td>
<td>Various (depending on formula and 1K/2K)</td>
<td>Fast</td>
<td>Fast fixture</td>
<td>Slow (1K) to Fast (2K)</td>
<td>Very Fast</td>
</tr>
<tr>
<td><strong>Mechanical resistance</strong></td>
<td>++</td>
<td>+++</td>
<td>++</td>
<td>+</td>
<td>+++</td>
</tr>
<tr>
<td><strong>Flexibility</strong></td>
<td>++</td>
<td>–/++</td>
<td>–/++</td>
<td>+++</td>
<td>–</td>
</tr>
<tr>
<td><strong>Temperature resistance</strong></td>
<td>++</td>
<td>++</td>
<td>+++</td>
<td>++++</td>
<td>++</td>
</tr>
</tbody>
</table>

*SpeedCure™* is a Henkel method to accurately and efficiently cure adhesives in display applications. Practicable cycle time for mass production is 30-60 seconds and suitable to bond e.g. cold bended glass/plastic lenses to curved frames. Enables to define with high accuracy the areas to be cured and not to be cured.

**Focus technologies - overview**

- **MS polymer**
  - Teroson MS 650
    - 1K/RTV
    - 2K/SpeedCure *
  - Teroson MS 651; MS 647
    - 1K/RTV
    - 2K/SpeedCure *
  - Teroson MS 930
    - 1K/RTV
    - 2K/RT or heat cure

- **Polyurethane**
  - Loctite PU 2073/2173
    - 1K/RT cure
    - 2K/SpeedCure *
  - Technomelt PUR 4663
    - 1K/RHM
  - Technomelt PUR 9622
    - 1K/RHM
  - Loctite HHD 3573
    - 1K/RHM

- **PUR Hotmelt**
  - Teroson MS 650
    - 1K/RTV
    - 2K/SpeedCure *
  - Loctite SI 5610 A/B
    - 1K/RT cure
    - 2K/SpeedCure *
  - Loctite SI 5612 A/B
    - 1K/RT cure
    - 2K/SpeedCure *
  - Loctite SI 5615 A/B
    - 1K/RT cure
    - 2K/SpeedCure *

- **Silicone**
  - Loctite SI 3926
    - 1K/UV cure

- **Acrylic**
  - Loctite HHD 3573
    - 1K/RHM
  - Technomelt PUR 4663
    - 1K/RHM
  - Technomelt PUR 9622
    - 1K/RHM

**Display Structural Adhesives**

- **MS polymer**
  - Loctite PU 2073/2173
    - 1K/RT cure
    - 2K/SpeedCure *
  - Technomelt PUR 4663
    - 1K/RHM
  - Loctite SI 5610 A/B
    - 1K/RT cure
    - 2K/SpeedCure *
  - Loctite SI 5612 A/B
    - 1K/RT cure
    - 2K/SpeedCure *
  - Loctite SI 5615 A/B
    - 1K/RT cure
    - 2K/SpeedCure *

<table>
<thead>
<tr>
<th>Technology</th>
<th>MS polymer</th>
<th>Polyurethane</th>
<th>PUR Hotmelt</th>
<th>Silicone</th>
<th>Acrylic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1K or 2K</td>
<td>2K</td>
<td>1K</td>
<td>2K</td>
<td>1K</td>
<td></td>
</tr>
<tr>
<td>RT</td>
<td>RT</td>
<td>Heat</td>
<td>RT</td>
<td>RT</td>
<td>RT</td>
</tr>
<tr>
<td>Short (2K) to mid (1K)</td>
<td>Short</td>
<td>Variable</td>
<td>Short</td>
<td>Unlimited</td>
<td></td>
</tr>
<tr>
<td>Moisture (1K) or moisture (2K)</td>
<td>Chemical</td>
<td>Physical setting and moisture</td>
<td>Moisture (1K) or Chemical (2K)</td>
<td>UV</td>
<td></td>
</tr>
<tr>
<td>Various (depending on formula and 1K/2K)</td>
<td>Fast</td>
<td>Fast fixture</td>
<td>Slow (1K) to Fast (2K)</td>
<td>Very Fast</td>
<td></td>
</tr>
<tr>
<td>++</td>
<td>+++</td>
<td>++</td>
<td>+</td>
<td>+++</td>
<td></td>
</tr>
<tr>
<td>++</td>
<td>–/++</td>
<td>–/++</td>
<td>+++</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>++</td>
<td>++</td>
<td>+++</td>
<td>++++</td>
<td>++</td>
<td></td>
</tr>
</tbody>
</table>

**Europe**

Germany
Henkel AG & Co. KGaA
(Headquarters)
Henkelstraße 67
40589 Düsseldorf
Germany
Phone: (+49) 211.797.0

**Americas**

U.S.A.
Henkel Corporation
Madison Heights
32100 Stephenson Highway
Madison Heights, MI 48071
United States
Phone: (+1) 248.583.9300

**Asia-Pacific**

China
Henkel (China) Investment Co., Ltd
Building 7 & Building 6 (5F-7F), The Springs Center No.99, Jiang Wan Cheng Road, Yang Pu District, Shanghai 200438
China
Phone: (+86) 21.2891.8000

www.henkel-adhesives.com/automotive-electronics

The data contained herein are intended as reference only. Please contact Henkel AG & Co. KGaA for assistance and recommendation on specifications for these products. All marks are trademarks and/or registered trademarks of Henkel and/or its affiliates in the US, Germany and elsewhere.

© 2020 Henkel AG & Co. KGaA, All rights reserved. DSIGNWAJP202005AAC01 (05/2020)