LOCTITE® AA 3295™

Know as LOCTITE® 3295™
June 2014

PRODUCT DESCRIPTION
LOCTITE® AA 3295™ provides the following product characteristics:

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
<td>Acrylic</td>
</tr>
<tr>
<td>Chemical Type</td>
<td>Methacrylate</td>
</tr>
<tr>
<td>Appearance, Resin (A)</td>
<td>Yellow liquid</td>
</tr>
<tr>
<td>Appearance, Hardener (B)</td>
<td>Blue liquid</td>
</tr>
<tr>
<td>Appearance (Mixture)</td>
<td>Green</td>
</tr>
<tr>
<td>Components</td>
<td>Two component</td>
</tr>
<tr>
<td>Cure Application</td>
<td>Room temperature cure after mixing</td>
</tr>
<tr>
<td>Specific Benefit</td>
<td>Suitable for a wide range of substrates, including metals and plastics</td>
</tr>
</tbody>
</table>

LOCTITE® AA 3295™ is a two component toughened acrylic adhesive system for high strength structural bonding. The two components are applied premixed from a static mixer which cures rapidly on assembly of the joint.

TYPICAL PROPERTIES OF UNCURED MATERIAL

**Part A:**
- Specific Gravity @ 25 °C: 1.02
- Flash Point - See SDS

**Part B:**
- Specific Gravity @ 25 °C: 1.05
- Flash Point - See SDS

**Mixed:**
- Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP):
  - Spindle 6, speed 20 rpm: 11,000 to 23,000

TYPICAL CURING PERFORMANCE

**Cure Speed vs. Substrate**
The rate of cure will depend on the substrate used. The graph below shows the shear strength developed with time on steel lap shears compared to different materials and tested according to ISO 4587.

**Cure Speed vs. Bond Gap**
The rate of cure will depend on the bondline gap. The following graph shows the shear strength developed with time on steel lap shears at different controlled gaps and tested according to ISO 4587.

**Cure Speed vs. Temperature**
The rate of cure will depend on the ambient temperature. The graph below shows the shear strength developed with time at different temperatures on steel lap shears and tested according to ISO 4587.
TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties:
- Coefficient of Thermal Expansion, ISO 11359-2, K⁻¹: $1 \times 10^{-4}$
- Coefficient of Thermal Conductivity, ISO 8302, W/(m·K): 0.1
- Specific Heat, kJ/(kg·K): 0.3

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 48 hours @ 22 °C:
- Lap Shear Strength, ISO 4587:
  - Steel: N/mm² 24.8 (psi) (3,600)
  - Oiled steel: N/mm² 7.6 (psi) (1,100)
  - Aluminum: N/mm² 17.3 (psi) (2,500)
  - ABS: N/mm² 2.1 (psi) (300)
  - PVC: N/mm² 4.5 (psi) (650)
  - Polycarbonate: N/mm² 2.8 (psi) (400)
  - Wood: N/mm² 2.8 (psi) (400)

“T” Peel Strength, ISO 11339:
- Aluminum: N/mm (lb/in) 3.5 (20)

TYPICAL ENVIRONMENTAL RESISTANCE

Cured for 1 week @ 22 °C:
- Lap Shear Strength, ISO 4587:
  - Steel

Heat Aging
Aged at temperature indicated and tested @ 22 °C:

Chemical/Solvent Resistance
Aged under conditions indicated and tested @ 22 °C:

<table>
<thead>
<tr>
<th>Environment</th>
<th>°C</th>
<th>100 h</th>
<th>500 h</th>
<th>1000 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor oil (MIL-L-46252)</td>
<td>125</td>
<td>90</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Unleaded gasoline</td>
<td>22</td>
<td>80</td>
<td>75</td>
<td>70</td>
</tr>
<tr>
<td>Humidity, 98% RH</td>
<td>40</td>
<td>90</td>
<td>65</td>
<td>60</td>
</tr>
<tr>
<td>Water/glycol 50/50</td>
<td>87</td>
<td>50</td>
<td>50</td>
<td>45</td>
</tr>
<tr>
<td>Water</td>
<td>22</td>
<td>100</td>
<td>100</td>
<td>65</td>
</tr>
<tr>
<td>Acetone</td>
<td>22</td>
<td>30</td>
<td>15</td>
<td>0</td>
</tr>
</tbody>
</table>

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Safety Data Sheet (SDS).
Directions for use:
1. For best performance bond surfaces should be clean and free from grease.
2. To ensure a fast and reliable cure, product should be applied through a static mixer using appropriate dispensing equipment.
3. Open time in the static mixer is approximately 5 minutes.
4. Avoid cross contamination of the two components of this product.
5. Apply the LOCTITE® AA 3295™ adhesive immediately and assemble bond (within 5 minutes).
6. Excess adhesive can be wiped away with organic solvent.
7. Bond should be held clamped until adhesive has fixtured.
8. Product should be allowed to develop full strength before subjecting to any service loads (typically 24 to 72 hours after assembly, depending on bond gap, materials and ambient conditions).

Not for product specifications
The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

Storage
The product is classified as flammable and must be stored in an appropriate manner in compliance with relevant regulations. Do not store near oxidizing agents or combustible materials. Store product in the unopened container in a dry location. Storage information may also be indicated on the product container labelling.

Optimal Storage: 2 °C to 8 °C. Storage below 2 °C or greater than 8 °C can adversely affect product properties. Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Conversions
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Note:
The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Reference 1.2

For the most direct access to local sales and technical support visit: www.henkel.com/industrial