

**LOCTITE® EA 9536™**Known as Loctite® 9536™  
April 2019**PRODUCT DESCRIPTION**

LOCTITE® EA 9536™ provides the following product characteristics:

|                    |                      |
|--------------------|----------------------|
| <b>Technology</b>  | Epoxy                |
| <b>Appearance</b>  | Black tack free film |
| <b>Cure</b>        | Heat cure            |
| <b>Application</b> | Bonding              |

LOCTITE® EA 9536™ is a 1-component, heat curing and expanding epoxy adhesive, developed for bonding metal substrates. It is designed for dry applications as a solid, flexible and non-tacky film. After application, the material can be cured and expanded at temperatures above 150°C (e.g. during paint cure processes). The applied temperature determines expansion degree and cure time of the material.

**TYPICAL PROPERTIES OF UNCURED MATERIAL**

|                                      |        |
|--------------------------------------|--------|
| Specific Gravity @ 23°C              | 1 g/mL |
| Solids Content                       | >99%   |
| Shore Hardness, ISO 868, Durometer A | 40     |

**TYPICAL CURING PERFORMANCE**

LOCTITE® EA 9536™ cures when exposed to appropriate levels of heat. Recommended conditions for curing are exposure of the bond line to temperatures at or above 170°C (typically 20 minutes @ 180°C). Rate of cure and final strength will depend on the residence time at the cure temperature so cure schedule should be confirmed with actual production parts and equipment.

**TYPICAL PERFORMANCE OF CURED MATERIAL****Adhesive Properties**

Cured for 20 minutes @ 170 °C

Lap Shear Strength, ISO 4587:

|                     |   |
|---------------------|---|
| Aluminum 0.2 mm gap | N/mm <sup>2</sup> 15.7<br>(psi) (2,280) |
| Aluminum 2.0 mm gap | N/mm <sup>2</sup> 4.0<br>(psi) (580)    |
| Steel 0.2 mm gap    | N/mm <sup>2</sup> 16.5<br>(psi) (2,390) |
| Steel 2.0 mm gap    | N/mm <sup>2</sup> 5.7<br>(psi) (830)    |

|                             |                                       |
|-----------------------------|---------------------------------------|
| Tensile Strength, ISO 527-2 | N/mm <sup>2</sup> 34<br>(psi) (4,960) |
|-----------------------------|---------------------------------------|

|                            |  |
|----------------------------|--|
| Tensile Modulus, ISO 527-2 | N/mm <sup>2</sup> 3,200<br>(psi) (464,000) |
|----------------------------|--|

|   |       |
|---|-------|
| Glass Transition Temperature, ISO 11357-2 | 120°C |
| Degree of Expansion                       | 70%   |

**TYPICAL ENVIRONMENTAL RESISTANCE**

Cured for 20 minutes @ 170 °C

Lap Shear Strength, ISO 4587:

**Heat Aging**

After 1,000 hours @ 85 °C / 85% RH

|                     |   |
|---------------------|---|
| Aluminum 0.2 mm gap | N/mm <sup>2</sup> 11.9<br>(psi) (1,725) |
| Aluminum 2.0 mm gap | N/mm <sup>2</sup> 4.3<br>(psi) (625)    |
| Steel 0.2 mm gap    | N/mm <sup>2</sup> 12.7<br>(psi) (1,840) |
| Steel 2.0 mm gap    | N/mm <sup>2</sup> 4.9<br>(psi) (710)    |

**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 and other contaminants.
2. For high strength structural bonds, special surface treatments can increase the bond strength and durability.
3. LOCTITE® EA 9536™ should be applied onto parts at temperatures of 20 to 35 °C. At higher temperatures the film gets more deformable and tacky. Do not apply LOCTITE® EA 9536™ at temperatures above 80 °C prior to cure cycle.
4. Keep parts from moving during cure. The joint should be allowed to develop full strength before subjecting to any service loads.

**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**

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

**The shelf life is 4 months at a temperature of up to 25°C. If stored below 8°C, the storage time can be Extended to 12 months.** Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation 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**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{inches}$   
 $\mu\text{m} / 25.4 = \text{mil}$   
 $\text{N} \times 0.225 = \text{lb}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{N/mm}^2 \times 145 = \text{psi}$   
 $\text{MPa} \times 145 = \text{psi}$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

**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 prior trials to confirm such suitability of our product.

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**Reference 5**