



LOCTITE EA 4582

October 2019

PRODUCT DESCRIPTION

LOCTITE EA 4582 provides the following product characteristics:

Technology	Epoxy Adhesive
Chemical Type	Epoxy
Appearance	Grey
Components	One-component
Cure	Heat cure
Application	General assembly
Maximum Gap	2.0mm

Applications Areas:

LOCTITE EA 4582 is a one-component solvent free epoxy based product which sets quickly when heated. Bonded assemblies have excellent resistance to high temperatures and severe environments.

LOCTITE EA 4582 combines very fast setting at elevated temperatures with some gap fill capability. This adhesive was designed to provide controlled penetration into filter elements when bonding end caps and is also suitable for bonding ferrites used in electric motors etc.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity	1.16 to 1.22
Viscosity, mPa·s (cP)	55,000 to 80,000

TYPICAL CURING PERFORMANCE

Cure Time at 100°C, minutes	120
Cure Time at 120°C, minutes in an air circulation	45

Cure Speed vs. Time/Temperature

The actual cure time for any application is dependent on the time it takes for the adhesive to reach temperature. Larger components, or batch curing, will require a longer warm up time and the cure cycle may be extended. The use of alternative heating methods may also affect the time required to achieve full cure; Hotplates, Infra-Red lamps or Induction heating will generally give a faster cure.

TYPICAL PERFORMANCE OF CURED MATERIAL

Lap Shear Strength - Steel*	N/mm ² >15 (psi) (>2,170)
-----------------------------	---

*With joints involving materials such as ferrites or SMC bond strengths are generally greater than that of the substrate itself. The bond strengths measured on the more ductile metals, such as copper and its alloys, will be affected by the modulus of the metal and the thickness of the actual components.

GENERAL INFORMATION

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

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

Pre-Treatment:

The substrate should be clean, dry, free of dust, oil, grease and other contaminants. An improvement of the adhesion can be achieved by grinding or sandblasting the surface.

Directions For Use:

The recommended service temperature range for this product is -40 to 180°C. Higher temperatures may be endured for short periods providing the adhesive is not unduly stressed.

The adhesive should be extruded using a bead diameter that will allow complete coverage of the bond area. Care should be taken not to include, or trap, any air within the joint.

Normally it should be applied to only one surface. Assemble the parts and squeeze together with sufficient pressure to ensure the adhesive spreads to cover the entire bond area. Jig the components using a light clamping pressure and place in the oven to cure.

Do not disturb the joint until the adhesive has cured.

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/mm ² 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

Not for product specifications

The technical data contained herein are intended as reference only and are not considered specifications for the product. Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

Storage

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

Optimal Storage: 2 °C to 8 °C. Storage below 2 °C or greater than 8 °C can adversely affect product properties.

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.



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. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:

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. 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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada Corporation, the following disclaimer is applicable:

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before 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.

Trademark usage:

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.