

LOCTITE UK 8309 / LOCTITE UK 5400

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PRODUCT DESCRIPTION

LOCTITE UK 8309 / LOCTITE UK 5400 provides the following product characteristics:

Technology	Polyurethane
Product Type	PU Adhesive
Cure	Polyaddition
Condition	Solvent-free
Components	Two-component
Application	Assembly
Appearance (Comp. A)	white
Appearance (Comp. B)	brown
Mixing Ratio, by weight Comp. A : Comp. B	5 : 1
Mixing Ratio, by volume Comp. A : Comp. B	3.7 : 1

LOCTITE UK 8309 / LOCTITE UK 5400 is a solvent-free two-component adhesive, based on polyurethane. The resin part (component A) contains organic compounds with hydroxyl groups, the hardener (component B) is based on isocyanates.

By mixing both components in a mix ratio of 5 : 1 a hard elastic product is formed through chemical reaction. After curing the product exhibits no measurable change in volume.

Application Areas:

LOCTITE UK 8309 / LOCTITE UK 5400 is used for bonding of metals, synthetic materials, wood and hard foams.

TECHNICAL DATA

Component A

Loctite UK 8309:

Consistency: pasty
Density, g/cm³: 1.6 to 1.7

Component B

Loctite UK 5400:

Consistency: thin liquid
Density, g/cm³: 1.17 to 1.27

Viscosity - Brookfield - RVT, 20°C, mPa.s *
M-10: 250 to 350

Mixture (Component A + B):

Consistency: pasty
Pot life (120g, 23 °C), min*
M-20: 40 to 60
Open Time (23°C, 50 % rh), min
M-30: 70 to 130
Consumption, g/m²: 200 to 500
(depending on substrate)
Tensile shear strength, MPa *
EN 1465 / M-40: >9

All technical data based on Henkel test method.
Data with * are specified.

DIRECTIONS FOR USE

Preliminary Statement:

Prior to use it is necessary to read the **Material Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

Pretreatment:

The substrate should be clean, dry, free of dust, oil, grease and other contaminants. The usage of suitable primers on metal surfaces can improve the adhesion and/or the long-term bond stability. The surface of plastic materials should be cleaned, so as to remove any kind of release agents present on the substrate surface. An improvement of the adhesion can be achieved by grinding or sandblasting the surface.

Application:

Adhesive components can be mixed manually, with stirring application or two-component mixing equipment. The product may be applied by spatula. The adhesive is only to be used within a limited time (pot life). After this time the mixture gels



up and is not suitable for use. Therefore only the amount that can be applied within the time of pot life should be mixed. The pot life depends on the quantity and temperature of the mixed batch. With larger quantities and an increase in temperature, the pot life decreases. Lower temperatures extend the pot life. Adhesive components should not come into contact with moisture during storage or application. Contact with moisture (water vapour) generates foaming of the adhesive and weakens the bondline. Therefore all packaging should be sealed properly and protected against humidity during storage.

Curing:

LOCTITE UK 8309 / LOCTITE UK 5400 can be cured at room temperature above 15°C and elevated temperatures (up to 60°C). The curing time can be reduced by increasing the temperature or the addition of the accelerator Loctite UK 6100, with the simultaneous reduction of processing time (i.e. pot life, open time) to be observed. While curing there should be adequate contact pressure (load pile, presses, clamps) and fixture hold the joint in place. An adhesive squeeze out along the bond line is a good indication of sufficient adhesive in the joints.

Cleaning:

Fresh, uncured material (cleaning application equipment, substrate contamination etc.) can be removed with LOCTITE SF 8040; cured adhesive can only be removed mechanically.

Classification:

Please refer to the corresponding **Safety Data Sheets** for details on:

Hazards identification
Transport information
Regulatory information

Storage:

Component A

Recommended storage temperature, °C	15 to 25
Shelf-life (in unopened original packaging), months	12

Component B

Recommended storage temperature, °C	15 to 30
Shelf-life (in unopened original packaging), months	12
Frost-Sensitive	Yes

Storage below 10°C or greater than 50°C can adversely affect product properties.

ADDITIONAL INFORMATION

Disclaimer

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.

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