Technical Data Sheet

LOCTITE® UK 8309 / LOCTITE® UK 5400

March 2016

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 casting resin 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 pretreated materials, synthetic materials and hard foams.

Technical data

Component A:

Consistency	pasty
Density, g/cm³	1.6 - 1.7

Component B:

Consistency	thin liquid
Density, g/cm³	1.17 - 1.27
Viscosity, Brookfield - RVT, 20°C, mPa.s * M-10	250 - 350

Mixture (Component A + B):

Consistency	pasty
Pot life (120g, 23°C) , min. M-20	40 - 60
Open time (23°C, 50 % rh), min M-30	70 - 130
Consumption, g/m²	200 - 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 **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.

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

Component A must be properly homogenized before use. Adhesive components can be mixed manually by using an electrical hand mixer or by using a two-component dispending system. After mixing no streaks must be visible. 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 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 Sheet** for details on:
Hazards identification
Transport information
Regulatory information

Storage

Component A:

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

Component B:

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

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

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