Technical Data Sheet

LOCTITE UK 8103 B10 / LOCTITE UK 5400

April 2015

PRODUCT DESCRIPTION

LOCTITE UK 8103 B10 / LOCTITE UK 5400 provides the following product characteristics:

Technology	Polyurethane
Product Type	PU Adhesive
Cure	Polyaddition
Condition	Solvent-free
Components	Two-components
Component A	Resin
Component B	Hardener
Application	Assembly
Color (Comp. A)	Beige
Color (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 8103 B10 / 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 adhesive is formed through chemical reaction. After curing the product exhibits no measurable change in volume.

As natural raw materials (from different cultivation areas) are used a variation in color between different batches is possible.

APPLICATION AREAS

LOCTITE UK 8103 B10 / LOCTITE UK 5400 is used for bonding of pretreated metals, synthetic materials, wood and hard foams.

The main application is the production of sandwich elements, e.g. for vehicle, container and the construction industry.

Furthermore this product is used as a potting, filling and coating compound.

TECHNICAL DATA

Component A
Loctite UK 8103 B10:

Consistency:	liquid
Density, g/cm³	1.6 to 1.7
Viscosity, Brookfield - RVT, 20°C, mPa.s * Henkel method 10	24,000 to 30,000

Component B
Loctite UK 5400:

Consistency:	thin liquid
Density, g/cm³	1.17 to 1.27
Viscosity, Brookfield - RVT, 20°C, mPas * Henkel method 10	250 to 350

Mixture (Component A + B):

Consistency:	liquid
Viscosity, Brookfield - RVT, 20°C, mPas Henkel method 11	8,000 to 10,000
Pot life (120g, 20°C), min * Henkel method 20	8 to 12
Initial setting time (23°C °C), min	60 to 80
Final setting time (23°C), days	2 to 3
Tensile Shear Strength, MPa EN 1465 / Henkel method 40	>6
Service Temperature, °C	-40 to 80
Consumption, g/m² : (depending on substrates)	200 to 400

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:
Component A must be properly and slowly homogenized before use.
Adhesive components can be mixed manually by using an electrical hand mixer or by using a two-component dispending system and inclusion of air must be prevented. 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 8103 B10 / LOCTITE UK 5400 can be cured between 15°C and elevated temperatures (up to 60 °C). The curing time will be reduced substantially with increasing temperatures. While curing there should be adequate contact pressure (load pile, presses, clamps) and fixtures to hold the joint in place. An adhesive squeeze out along the bond line is a good indication of sufficent 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 **Material Safety Data Sheets** for details on:
Hazardous Information
Transport Regulations
Safety Regulations

Storage

Component A

Recommended Storage Temperature, °C	15 to 30
Shelf-life (in unopened original packaging)	12 months

Component B

Recommended Storage Temperature, °C	15 to 30
Shelf-life (in unopened original packaging)	12 months

ADDITIONAL INFORMATION

Disclaimer

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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