Technical Data Sheet

LOCTITE UK 8202 / LOCTITE UK 5400

November 2014

PRODUCT DESCRIPTION

LOCTITE UK 8202 / 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)	Cream
Color (Comp. B)	Brown
Mixing Ratio, by weight Comp. A : Comp. B	4 : 1
Mixing Ratio, by volume Comp. A : Comp. B	3.4 : 1

LOCTITE UK 8202 / 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 4 : 1 a hard elastic product 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 8202 / LOCTITE UK 5400 is used for the adhesion of pretreated metals, synthetic materials and rigid foams.

The main application is the production of sandwich elements, e.g. for the manufacture of vehicles, containers building industry, building of ships, tanks and tankers as well as technical isolations up to -190°C. Furthermore this product is used as a potting, filling and coating compound.

TECHNICAL DATA

Component A

Loctite UK 8202:

Consistency:	liquid
Density, g/cm³	1.4 to 1.5
Viscosity, Brookfield - RVT, 20°C, mPa.s * Henkel method 10	23,000 to 31,000

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, mPa.s Henkel method 11	8,000 to 10,000
Pot life (125g, 20 °C) , min Henkel method 20	80 to 120
Initial setting time (23 °C), hrs	8 to 10
Final setting time (23°C), days	5 to 7
Tensile shear strength, MPa * EN 1465 / Henkel method 40	> 12
Service Temperature, °C	-190 to 80
Consumption, g/m²	200 to 400 (depending on substrate)

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

Certificates and Approvals

Test certificates of 'Brandversuchshaus, Hamburg', D-22767 Hamburg, for low flammability in ship building according to IMO Resolution FTPC part 5, based on an applied quantity of 250g/m² .

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 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 8202 / 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.

TYPICAL TEST RESULTS

Tensile Shear Strength (in MPa) as function of the curing time at 20 °C:

Time / Zeit	1d	2d	5d	7d
TSS	7	12	14	16

Tensile Shear Strength (in MPa) as function of the curing time at elevated temperatures (Measured at 20 °C):

Curing temp. / Aushärtetemperatur	0.5h	1h	2h	3h	7h
80°C	4.5	8.5	12	14	16.5
100°C	11.5	14.5	16.5	17	17.5

Tensile Shear Strength * (in MPa) at different temperatures (after 12 days at ambient temperature):

Temperature	-180°C	-40°C	-20°C	0°C	20°C	80°C	100°C
TSS	31.2	30.8	31	26	19.9	3.5	3

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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Trademark usage

Reference 0.1

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