BUILDING TRUST

PRODUCT DATA SHEET

Sikadur® Blade Repair Kit-90

2-component epoxy resin system for structural laminate repairs

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties		Sikadur® Blade Repair Kit-90 (A)	Sikadur® Blade Repair Kit-90 (B)
Chemical base		Epoxy	Amine
Color (CQP001-1)		Translucent	Amber
	mixed	Colorless to amber	
Cure mechanism		Polyaddition	
Density (uncured)		1.16 g/cm³ [A]	0.94 g/cm³ [A]
	mixed	1.12 g/cm³ [A]	
Mixing ratio	by weight	100 : 30	
Solid content		100 %	
Viscosity		1250 mPa·s [A, B]	15 mPa·s [A, B]
	mixed	540 mPa·s [A, B]	
Application temperature		5 – 35 °C	
Pot-life (CQP536-3)		90 min [A]	
Density of cured specimen (ISO 1183)		1.17 g/cm³ [A, C]	
Shore D hardness (CQP023-1 / ISO 48-4)		86 MPa [A, C]	
Flexural E-modulus (ISO 178)		3100 MPa [A, C]	
Flexural strength (ISO 178)		120 MPa [A, C]	
Tensile E-modulus (ISO 527)		2800 MPa [A, C]	
Tensile strength (ISO 527)		85 MPa [A, C]	
Elongation at break (CQP545-2 / ISO 527)		5 % [A, C]	
Compressive strength (ISO 604)		110 MPa [A, C]	
Impact resistance (ISO 179)		50 kJ/m² [A, C]	
Glass transition temperature (ISO 11357-2)		95 °C [C]	
Shelf life		12 months [D]	

CQP = Corporate Quality Procedure
[A] 23 °C / 50 % r.h.
[B] rotation, PP40, 0.5 mm, 150 min^{-1}
[C] cured for 2 hours at 80 °C
[D] storage between 5 and 35 °C

DESCRIPTION

Sikadur® Blade Repair Kit-90 is a high T_g composite resin system for wet lay-up processing. It is used where longer potlife for repair of wind blades is requested. If faster curing is required it is advisable to use Sikadur® Blade Repair Kit-30.

PRODUCT BENEFITS

- Good impregnation and nondraining properties
- High glass transition temperature
- Fast curing
- High stiffness and strength
- Light weight packaging (MixPax)
- Premeasured quantities
- Resistant to crystallization at low temperature

AREAS OF APPLICATION

Sikadur® Blade Repair Kit-90 is designed for repair of damaged laminate structures of rotor blades. It is optimized for hand lay-up but can also be used for repair of patches by vacuum infusion.
This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed ensuring adhesion and material compatibility.

CURE MECHANISM
The curing of Sikadur® Blade Repair Kit-90 takes place by chemical reaction of the two components. Higher temperatures speed up the curing process and lower slow it down.

CHEMICAL RESISTANCE
In case of chemical or thermal exposure conduct project related testing.

METHOD OF APPLICATION
Surface Preparation
It is necessary to prepare the substrates prior to lamination to ensure optimal adhesion and strength. Surfaces must be clean, dry and free from grease, oil, dust and contaminants. After the cleaning process, a physical or chemical pretreatment might be required, depending on the surface and type of material.

Mixing process
Open packaging and remove sealing strip. Retain plastic clip and use it to move resin (A) into the section containing the hardener (B). Repeat 4 - 6 times. Squeeze packaging vigorously for 30 s to properly mix the two components. Carefully cut off the corner of the packaging and pour the resin into a cup. Apply Sikadur® Blade Repair Kit-90 within pot life.

Removal
Uncured Sikadur® Blade Repair Kit-90 may be removed from tools and equipment with Sika® Cleaner P. Once cured, the material can only be removed mechanically.
Hands and exposed skin have to be washed immediately using hand wipes such as Sika® Cleaner-350H or a suitable industrial hand cleaner and water.
Do not use solvents on skin.

STORAGE CONDITIONS
Sikadur® Blade Repair Kit-90 has to be kept between 5 °C and 35 °C in a dry place. During transportation, a maximum temperature of 60 °C must not be exceeded. Do not expose to direct sunlight. If crystallisation of resin occurs, heat the MixPax up to 60 °C for 1 – 2 hours.

FURTHER INFORMATION
The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Industry.
Copies of the following publications are available on request:
- Safety Data Sheet

PACKAGING INFORMATION

MixPax	300 g

BASIS OF PRODUCT DATA
All technical data stated in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

HEALTH AND SAFETY INFORMATION
For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

DISCLAIMER
The information, and, in particular, the recommendations relating to the application and enduse of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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