# Sikadur<sup>®</sup> Blade Repair Kit-30

Fast two component epoxy resin system for structural laminate repairs

Technical Product Data	Component A,	Component B,	
Properties	Resin	Hardener	
Chemical base	Ероху	Amine	
Colour (CQP <sup>1</sup> 001-1)	Translucent	Colourless to amber	
Colour mixed	Colourless t	Colourless to amber	
Curing mechanism	Polyadd	Polyaddition	
Density (CQP 553-2)	1.17 g/cm <sup>3</sup> approx.	1.0 g/cm <sup>3</sup> approx.	
Density mixed (calculated)	1.13 g/cm <sup>3</sup>	1.13 g/cm <sup>3</sup> approx.	
Mixing ratio by weig	ht 100 : 2	100 : 26	
Solid content	100%	100%	
Viscosity <sup>2</sup> , 25°C	850 mPa⋅s approx.		
		50 mPa⋅s approx.	
mix	ed 450 mPa·s	approx.	
Application and processing temperature	18 - 35°C (6	18 - 35°C (65 - 95°F)	
Pot life <sup>3</sup>	30 min. a	30 min. approx.	
Density of cured specimen <sup>4</sup> (ISO 1183)	1.17 app	1.17 approx.	
Shore D hardness <sup>4</sup> (ISO 868)	85 app	85 approx.	
Flexural E-Modulus <sup>4</sup> (ISO 178) 3000 MPa a		approx.	
Flexural strength <sup>4</sup> (ISO 178)	120 MPa a	120 MPa approx.	
Tensile E-Modulus <sup>4</sup> (ISO 527)	2800 MPa	2800 MPa approx.	
Tensile strength <sup>4</sup> (ISO 527)	85 app	85 approx.	
Elongation at break <sup>4</sup> (ISO 527)	5% app	5% approx.	
Compressive strength <sup>4</sup> (ISO 604)		100 MPa approx.	
Impact resistance <sup>4</sup> (ISO 179)	70 kJ/m <sup>2</sup> a	70 kJ/m <sup>2</sup> approx.	
Heat distortion temperature <sup>4</sup> (ISO 75B)	75°C ар	75°C approx.	
Glass transition temperature <sup>4</sup> (ISO 11357)	75°C ap	75°C approx.	
Shelf life <sup>5</sup> (CQP 016-1) in 300 g MixPa	ax 12 mor	12 months	
<sup>1)</sup> COP = Corporate Quality Procedure <sup>2)</sup> Rotation PP40 0	5 mm 150 min <sup>-1</sup> $^{3)}23^{\circ}C$ (	73°F) / 50% r h	

<sup>1)</sup> CQP = Corporate Quality Procedure
 <sup>4)</sup> After 12 h curing at 55°C

Description

sible care program.

Sikadur<sup>®</sup> Blade Repair Kit-30 is a high T<sub>g</sub> composite resin system for wet lay-up processing. Sikadur<sup>®</sup> Blade Repair Kit-30 is manufactured in accordance with ISO 9001 / 14001, quality assurance system and with the respon<sup>2)</sup> Rotation, PP40, 0.5 mm, 150 min<sup>-1</sup> <sup>3)</sup> 23°C (73°F) / 50% r.h.

<sup>5)</sup> Stored between 18°C and 25°C in original, unopened containers

## **Product Benefits**

- Good impregnation and nondraining properties
- High Heat Distortion Temperature (HDT)
- Curing at room temperature possible
- High stiffness and strength
- Light weight packaging (MixPax)
  Premeasured quantities (no weighing of components)

### Areas of Application

Sikadur<sup>®</sup> Blade Repair Kit-30 is designed for repair of damaged laminate structures of rotor blades. This product is suitable for professional experienced users only. Tests with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.



#### Cure Mechanism

Sikadur<sup>®</sup> Blade Repair Kit-30 takes place by chemical reaction of the two components. Higher temperatures speed up the curing process and lower temperatures slow down the curing process.

#### **Environmental Resistance**

In case of expected chemical or thermal exposure, we recommend a project related testing. Consult the Technical Service Department of Sika Industry for advice.

# Method of Application

Surface preparation

It is necessary to prepare the substrates prior to lamination to ensure optimal adhesion and strength. Based on the surface condition and type of material, physical or chemical pre-treatment may be required after the cleaning process.

Advice on specific applications is available from the Technical Service Department of Sika Industry.

#### Mixing

Cut off the corners of A- and Bpockets of the MixPax and pour the content into mixing cup (fully empty the packaging!). Stir constantly until a homogeneous mixture is obtained. Apply mixed composite resin system within application time. See *Instruction Sheet for Sika*<sup>®</sup> *MixPax* for further information or consult Technical Service Department of Sika Industry. *Cleaning* Uncured Sikadur<sup>®</sup> Blade Repair Kit-30 may be removed from tools and equipment with Sika<sup>®</sup> Cleaner P. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using Sika<sup>®</sup> Handclean towels or a suitable industrial hand cleaner and water. Do not use solvents!

#### **Storage Conditions**

Sikadur<sup>®</sup> Blade Repair Kit-30 has to be kept between 18°C and 25°C in a dry place. Do not expose to direct sunlight or frost. After prolonged storage at low temperature, crystallisation of resin may occur. This is easily removed by warming up for sufficient time to a maximum of 80°C.

#### **Further Information**

The following publications are available on request:

- Safety Data Sheet
- Additional Product Information for
- Structural Laminate Repairs Instruction Sheet for Sika<sup>®</sup>
- MixPax

#### Packaging Information

MixPax	300 q
(A- and B-component)	300 g

#### Value Bases

All technical data stated in this Product Data Sheet 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 Material Safety Data Sheets containing physical, ecological, toxicological and other safetyrelated data.

#### Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use 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.



Further information available at: <u>www.sika.ch</u> www.sika.com

Sika Schweiz AG Business Unit Industry Tüffenwies 16 CH-8048 Zurich Switzerland Tel. +41 58 436 40 40 Fax +41 58 436 55 30

