

# **BUILDING TRUST**

# PRODUCT DATA SHEET

# SikaBiresin® UR598 L01

# POLYURETHANE CASTING RESIN – SHORE D 65 – POT LIFE 1'

# **APPLICATIONS**

 Room temperature curing PU elastomer designed to make moulds and semi rigid parts.

# **MAIN PROPERTIES**

- Semi-rigid system
- Quick setting
- High tear strength
- Exists in longer pot life SikaBiresin® UR598 L06

# **DESCRIPTION**

| Basis Two component polyurethane system |   |  |
|---|---|--|
| Component A                             | SikaBiresin® <b>UR505</b> , isocyanate, amber |  |
| Component B                             | SikaBiresin® <b>UR598 L01</b> , polyol, beige |  |

| PHYSICAL PROPERTIES       |                    | Isocyanate (A)     | Polyol (B)             |
|---------------------------|--------------------|--------------------|------------------------|
| Components                |                    | SikaBiresin® UR505 | SikaBiresin® UR598 L01 |
| Viscosity, 25 °C          | mPa.s              | 450                | 1,500                  |
| Density, 25 °C            | g/cm <sup>3</sup>  | 1.21               | 1.19                   |
| Mixing ratio A:B          | in parts by weight | 65                 | 100                    |
|                           |                    | Mixture            |                        |
| Colour                    |                    | В                  | eige                   |
| Viscosity, 25 °C          | mPa.s              | ~ 1,000            |                        |
| Pot life, 25 °C, 165 g    | min                | ~1                 |                        |
| Demoulding time           | min                | ~ 5                |                        |
| Maximal casting thickness | mm                 | 50                 |                        |

# **MECHANICAL PROPERTIES**

approx. values

| Density          | ISO 1675 |          | 1.25 |
|------------------|----------|----------|------|
| Shore hardness   | ISO 868  | Shore D1 | D 65 |
| Tensile strength | ISO 37   | MPa      | 21   |

PRODUCT DATA SHEET SikaBiresin® UR598 L01 Juli 2020, Version 01 Sika Advanced Resins



| Tear strength       | ISO 34    | kN/m | 110 |
|---------------------|-----------|------|-----|
| BASHORE resilience  | ASTM 2632 | %    | 15  |
| Elongation at break | ISO 37    | %    | 140 |

# THERMAL AND SPECIFIC PROPERTIES

approx. values, hardening conditions 12 h at 80 °C

| Working temperature          | -           | °C | - 20 / + 70 |
|------------------------------|-------------|----|-------------|
| Glass transition temperature | TMA Mettler | °C | < 0         |

# **PACKAGING UNITS**

| • | Isocyanate (A), SikaBiresin® UR505 | 1025 kg; 225 kg; 11 kg net |
|---|------------------------------------|----------------------------|
|   | Polvol (B). SikaBiresin® UR598 L01 | 1025 kg; 20 kg net         |

# **PROCESSING DATA**

- The material, processing and model temperature should be at least 18 25 °C.
- Component B POLYOL must be stirred thoroughly before use.
- Mix ratio accuracy is 2% by weight.
- Could be mix by hand in appropriate container or with a 2K machine (check before with customer compatibility of the machine).
- Porous surfaces (wood-plywood, stone, plaster etc.) must be well sealed and dry before casting SikaBiresin® SikaBiresin® UR598 L01
- Use of PUR foam plates with low to middle density is not advised in any cases.
- The compatibility of the sealing on PUR foam should be tested separately.
- We recommend wax based release agents to release SikaBiresin® SikaBiresin® UR598 L01 from models. For more information, see Product Data Sheets of the release agents.
- Both components must be mixed thoroughly according to mixing ratio and poured immediately on the released model.
- Demoulding after one night at RT. Do not cure the PU at temperature >50 °C.
- To achieve the highest properties, leave the mould at 23 °C for 5 days before any use.

# STORAGE CONDITIONS

| Shelf life          | <ul> <li>Isocyanate (A), SikaBiresin® UR 505</li> <li>Polyol (B), SikaBiresin® UR 598 L01</li> <li>12 months</li> </ul>  |  |  |
|---------------------|--|--|--|
| Storage temperature | ■ Isocyanate (A), SikaBiresin® <b>UR 505</b> 18 – 25 °C ■ Polyol (B), SikaBiresin® <b>UR 598 L01</b> 18 – 25 °C  |  |  |
| Crystallization     | <ul> <li>After prolonged storage at low temperature, crystallization of components may occur.</li> <li>This is easily removed by warming up for a sufficient time to a maximum of 70 °C.</li> <li>Allow to cool to requested processing temperature before use.</li> </ul> |  |  |
| Opened packagings   | <ul> <li>Containers must be closed tightly immediately after use to prevent moisture ingress.</li> <li>The residual material needs to be used up as soon as possible.</li> </ul>   |  |  |

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#### **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 Advanced Resins. Copies of the following publications are available on request: Safety Data Sheets

#### **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.

#### **LEGAL NOTICE**

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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