

# Sikaflex®-292

## Marine High Strength Adhesive

Technical Product Data (typical values)

|  |            |                                |
|--|------------|--------------------------------|
| Chemical base                            |            | 1-C polyurethane               |
| Color                                    |            | White                          |
| Cure mechanism                           |            | Moisture-curing                |
| Density (uncured)                        |            | 10 lb/gal                      |
| VOC (EPA method 24)                      |            | 0.58 lb/gal (70 g/l)           |
| Non-sag properties                       |            | Very good                      |
| Application temperature                  | product    | 50°F - 95°F (10°C - 35°C)      |
| Tack free time <sup>1</sup>              |            | 40 Min                         |
| Curing speed                             |            | (see diagram 1)                |
| Shrinkage                                |            | 6%                             |
| Shore A-hardness (ASTM D 2240)           |            | 55                             |
| Tensile strength (ASTM D 412)            |            | 550 psi                        |
| Elongation at break (ASTM D 412)         |            | > 300%                         |
| Tear propagation resistance (ASTM D 624) |            | 51 pli                         |
| Tensile lap-shear strength (ASTM D 1002) |            | 360 psi                        |
| Volume resistivity (ASTM D 257-99)       |            | 5 x 10 <sup>9</sup> Wcm        |
| Service temperature                      | permanent  | -40°F to 194°F (-40°C to 90°C) |
| Short term                               | 4hours     | 266°F (130°C)                  |
|  | 1hour      | 302°F (150°C)                  |
| Shelf life (storage below 77°F (25°C))   | Cartridges | 9 months                       |
|  | Pails      | 6 months                       |

<sup>1</sup>) 73°F (23°C) / 50% r.h.

### Description

Sikaflex®-292 is a 1-component, moisture cured, polyurethane adhesive with high thixotropy and high strength. Sikaflex®-292 is particularly suited to bonding applications in the manufacture of boats. Sikaflex®-292 is a polyurethane based material which cures on exposure to the air (atmospheric moisture). The chemical reaction is set in motion as soon as the adhesive is extruded or cartridge is opened. Initially plastic in consistency, the material cures to form a high-grade elastomer.

### Product Benefits

- Bonds and seals at the same time.
- Replaces rivets and mechanical fasteners.
- Initial load bearing capacity.
- Increases torsional stiffness.
- Short tack free and curing time.
- Adhesion to a wide range of substrates.
- Sandable and paintable.
- High mechanical performance.
- Shock resistance.
- Vibration and sound dampening properties.
- Excellent weather and water resistance.
- Non-staining curing process.
- NSF registered for incidental food contact.

### Areas of Application

- Bonding of floors (plywood, blandex, wood, metal) to subfloor or metallic frame.
- Bonding of all exterior or interior panels, walls, sheets to corners or tubular frame.
- Bonding deck to hull.
- Bonding bulkheads, shower stalls, cabinets.
- Bonding port/hatch frames to hulls/deck.
- Bonding of trims, molding and all kinds of styling elements.
- Sealing, especially for large dimension joints.

Industry



- This product is suitable for experienced professional users only.
- Tests with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

### Cure Mechanism

Sikaflex®-292 cures by reaction with atmospheric moisture. At low temperature the water content of the air is generally lower and the curing reaction proceeds slower (see diagram).

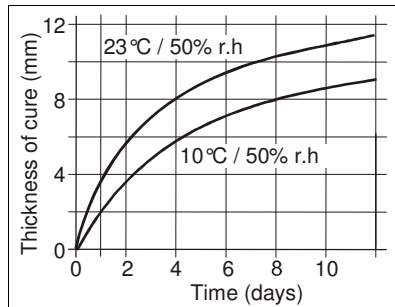


Diagram 1: Curing speed Sikaflex®-292

### Chemical Resistance

Sikaflex®-292 is resistant to fresh water, seawater, limewater, sewage effluent, dilute acids and caustic solutions; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; not resistant to organic acids, alcohol, concentrated mineral acids and caustic solutions or solvents. Brief contact with fuels and lubricants have no significant effect. It is recommended to test on a small area first to ensure compatibility. The above information is offered for general guidance only. Advice on specific applications will be given on request. Contact the Technical Service Department of Sika Industry at 888-832-7452.

### Method of Application

#### Surface preparation

Surfaces must be of sound quality, clean, dry and free from all traces of grease, oil and dust. As a rule the surfaces must be prepared in

accordance with the instructions given in the current edition of the Sika® Primer Chart for Marine applications. Advice on specific applications is available from the Technical Service Department of Sika Industry at 888-832-7452.

### Application

Cartridges: Pierce cartridge membrane.

Unipacs: Place unipac in the application gun and snip off the closure clip. Cut off the tip of the nozzle. To ensure uniform thickness of adhesive when compressed, Sika recommends applying the adhesive in the form of a triangular bead (see illustration). Once opened, packs should be used up within a relatively short space of time. Do not apply at temperatures below 50°F (10°C) or above 95°F (35°C). For cold weather application, store units at approximately 70°F; remove just prior to use. The optimum temperature for substrate and adhesive is between 59°F (15°C) and 77°F (25°C). Make sure joint is frost free. For cartridge application we recommend the use of a pneumatic-type dispense tool. If product is used as an adhesive, assemble within 15 minutes. If used as a non-sag sealant, tool before the product tacks. For advice on selecting and setting up a suitable pump system, as well as on the techniques of pump operated application, please contact the System Engineering Department of Sika Industry at 888-832-7452.

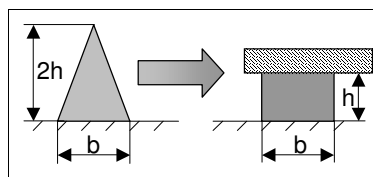


Figure 1: Recommended bead configuration

### Tooling and finishing

Tooling and finishing must be carried out within the tack-free time of the adhesive. We recommend the use of Sika® Slick Cutout Lubricant and Tooling Agent. Follow instructions for use. Other finishing agents or lubricants must be tested for suitability / compatibility.

### Removal

Uncured Sikaflex®-292 can be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Strictly follow solvent manufacturer's warnings and instructions for use. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using Sika® Hand Cleaner or a suitable industrial hand cleanser and water. Do not use solvents on hands!

### Overpainting

Sikaflex®-292 can be overpainted when tack-free. The paint and paint process must be tested for compatibility before use. Sikaflex®-292 should not be exposed to baking temperatures until it has attained full cure. It should be understood that the hardness and film thickness of the paint may impair the elasticity of the adhesive and lead to cracking of the paint film with time.

### Limitations

- Since system is moisture-cured, permit sufficient exposure to air.
- Do not apply over silicones or in the presence of curing silicones.
- Avoid contact with alcohol, and alcohol containing solvents, during cure.
- For best results, use opened cartridges the same day.

### WARNING:

**IRRITANT, SENSITIZER.** Contains Polyisocyanate Prepolymer (Mixture), Xylene (CAS 1330-20-7). Causes eye irritation. May cause skin/respiratory irritation. May

Further information available at:  
www.sikaindustry.com

Sika Corporation  
Industry Division  
30800 Stephenson Highway  
Madison Heights, MI 48071  
USA  
Tel. 248 577 0020  
Fax 248 577 0810



cause skin and/or respiratory sensitization after prolonged contact. May be harmful if swallowed. Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Headaches and dizziness may result. **Deliberate misuse by inhalation of vapors may be harmful or fatal. Strictly follow all usage, handling and storage instructions.**

#### HMIS

|                     |    |
|---------------------|----|
| Health              | *2 |
| Flammability        | 1  |
| Reactivity          | 0  |
| Personal Protection | C  |

#### First Aid Measure

**Eyes** – Hold eyelids apart and flush thoroughly with water for 15 minutes. **Skin** – Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water. **Inhalation** – Remove to fresh air. **Ingestion** – Do not induce vomiting. Dilute with water. Contact physician. **In all cases contact a physician immediately if symptoms persist.**

#### Further Information

Copies of the following publications are available on our website [www.sikaindustry.com](http://www.sikaindustry.com):

- Material Safety Data Sheets
- Product Data Sheet
- Sika Primer Chart
- General guidelines for bonding and sealing with Sika products

#### In case of emergency call:

**Chemtrec: 800-424-9300**  
**International: 703-527-3887**

#### Health and Safety Information

For further information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Material Safety Data Sheets containing physical, ecological, toxicological and other safety related

data. It is highly recommended to read the actual Material Safety Data Sheet before using the product.

- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **KEEP CONTAINER TIGHTLY CLOSED**

#### Packaging Information

|           |         |
|-----------|---------|
| Cartridge | 300 ml  |
| Pails     | 4.5 gal |

#### Value Basis

All technical data stated on this Product Data Sheet are based on the results of laboratory tests only. Actual measured data in the field may vary due to site specific conditions which are not known to Sika and beyond our control.

#### Handling and Storage

Avoid direct contact. Wear personal protective equipment (chemical resistant goggles/gloves/clothing) to prevent direct contact with skin and eyes. Use only in well ventilated areas. Open doors and windows during use. Use a properly fitted NIOSH respirator if ventilation is poor. Wash thoroughly with soap and water after use. Remove contaminated clothing and laundry before reuse. Store in cool dry area away from excessive heat.

#### Clean Up

Use personal protective equipment (chemical resistant gloves/goggles/clothing). Without direct contact, remove spilled or excess product and place in suitable sealed container. Dispose of excess product and container in accordance with applicable environmental regulations.

#### Limited Material Warranty

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on

the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. **NO OTHER WARRANTIES IMPLIED OR EXPRESS SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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**Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, product label and Material Safety Data Sheet which are available at [www.sikaindustry.com](http://www.sikaindustry.com). Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instruction for each Sika product as set forth in the current Product Data Sheet, product label and Material Safety Data Sheet prior to product use.**

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