

SikaFast® -3161

Long Skin Time, 10:1 Mix Ratio, Toughened Low Modulus Structural Methylmethacrylate Adhesive

Typical Product Data

Properties	Component A SikaFast®-3161	Component B SikaFast®-3161
Chemical base	Toughened 2-component methylmethacrylate	
Color	Purple	White
Color mixed	Purple, changing to dark brown when cured	
Cure mechanism	Free Radical Polymerization	
Density (uncured)	8.0 lb/gal	10.8 lb/gal
Density mixed	8.3 lb/gal	
Mixing ratio	by volume by weight	
	10:1 7.4:1	
Viscosity ^a (Brookfield TE@ 10 RPM)	775,000 cps	150,000 cps
Application temperature	product 50°- 95°F (10°- 35°C)	
Skin time ^b (CQP ^c 019)	50 minutes	
Peak Exotherm Time/Temperature; (Sika P.4.10.11)	90 minutes / 100°C (212°F)	
Tensile strength ^b (ASTM D 638)	1450 psi (10 MPa)	
E-Modulus ^b @0.1-1% (ASTM D 638)	1450 psi (10 MPa)	
Tensile lap-shear strength (CQP ^c 046-1)	1500 psi (10 MPa)	
Service temperature range	-20° to 180°F (-28°to 82°C)	
Shelf life (storage below 77°F (25°C))	9 months	9 months

^{a)} 77°F (25°C) ^{b)} 73°F (23°C) / 50% r.h. ^{c)} CQP = Corporate Quality Procedure

Description

SikaFast®-3161 is a flexible, two component acrylic adhesive designed to efficiently transfer high loads and evenly distribute stresses. These characteristics distinguish SikaFast®-3161 from other acrylic adhesives that claim high strength and elongation.

SikaFast®-3161 bonds many materials without surface preparation or priming and cures rapidly at room temperature. SikaFast®-3161 is a version of SikaFast® designed with higher viscosity and longer open time to address the specific requirements of large scale applications.

Product Benefits

- High strength
- High ductility
- Good damping properties
- Excellent adhesion to a wide variety of substrates with little or no surface preparation
- Higher mixed viscosity for better gap filling
- Longer open time for large applications

Areas of Application

SikaFast®-3161 is a 10:1 two part structural adhesive designed to substitute or complement welding, riveting and other mechanical fastening techniques used in the manufacturing of products constructed with metal and plastic substrates. This product is suitable for professional experienced users only. Test with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

Industry



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, label and Safety Data Sheet which are available on request at tsmh@us.sika.com. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instructions for each Sika product as set forth in the current Product Data Sheet, label and Safety Data Sheet prior to product use.

Cure Mechanism

SikaFast®-3161 cures by free radical polymerization. For an ideal curing process it is required to homogeneously mix both components within the defined ratio. SikaFast®-3161 offers an extended working time followed by fast curing. This leads to an optimal relation between application time and fast strength development to allow handling of bonded parts. Despite the quick strength build-up, premature exposure to stresses must be avoided since this may result in a reduction of mechanical properties and loss of adhesion.

Chemical Resistance

Cured SikaFast®-3161 has good resistance to dilute acids and bases, water, mineral oil and some aliphatic and aromatic hydrocarbon. **Actual chemical resistance of bonded components must be tested.** The above information is offered for general guidance only.

Method of Application

Surface preparation

All surfaces must be clean, dry, dust and grease free. Best result will be achieved with surfaces that have been lightly abraded immediately prior to bonding. Due to the diversity of substrates, preliminary tests are necessary.

Application

Material must be applied using the type of static mixer supplied with the product. If SikaFast®-3161 is applied in large amounts, excessive heat is generated by the exothermic reaction. To avoid such high temperatures the bond line thickness should not exceed 0.20 inches (5 mm). A bond line thickness of less than 0.01 inches (0.25 mm) is not recommended.

Removal

Uncured excess material can best be removed before curing with a dry wipe. From tools and equipment SikaFast®-3161 may be removed with Sika® Remover-208 or a suitable solvent. Once the adhesive is cured it can only be removed mechanically. Hands and exposed skin should be cleaned immediately using a suitable industrial hand cleaner and water. Do not use solvents on skin!

Further Information

To contact Sika Corporation's Technical Services Department please send an e-mail to tsmh@us.sika.com. Copies of the Safety Data Sheet are available upon request.

Packaging Information

Cartridge	490 ml
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Basis of Product Data

All technical data stated in this Provisional Product Data Sheet are based on laboratory tests only. 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.

Limited Material Warranty

Sika Corporation 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 EXPRESS OR IMPLIED 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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