Industry

SikaFast®-3551

Long Open Time, 1:1 Mix Ratio, Toughened, High Strength Structural Methylmethacrylate Adhesive

Typical Product Data

Properties		Component A SikaFast®-3551	Component B SikaFast®-3551
Chemical base		2-component methylmethacrylate	
Color		Off-White	Amber
Color mixed		Light Brown	
Cure mechanism		Free Radical Polymerization	
Density (uncured)		8.1 lb/gal	8.1 lb/gal
Density mixed		8.1 lb/gal	
Mixing ratio	by volume	1:1	
	by weight	1:1	
Viscosity[a] (Individual Component), Brookfield	Spindle #6 @ 2.5 RPM	125,000 cps	125,000 cps
Application temperature	product	50°- 95°F (10°- 35°C)	
Skin Time[b] (CQP[c] 019)		45 minutes	
Peak Exotherm Time/Temperature (Sika P.4.10.11)		200 minutes / 40°C (105°F)	
Shore D-hardness (ASTM D 2240)		73	
Tensile strength[b] (ASTM D 638)		2300 psi (16 MPa)	
E-Modulus @ 0.1-1% [b] (ASTM D 638)		113,000 psi (780 MPa)	
Tensile lap-shear strength (CQP 046-1)		3300 psi (23 MPa)	
Service temperature range		-40° to 260°F (-40°to 127°C)	
Shelf life (storage below 77°F (25°C))		12 months	9 months

[a] 77°F (25°C) [b] 73°F (23°C) / 50% r.h. [c] CQP = Corporation Quality Procedure

Description

SikaFast®-3551 is a long open time, 1:1 ratio two-component adhesive system based on methyl-methacrylate (MMA) polymer technology. Uncured SikaFast®-3551 is a thixotropic, non-sagging paste which allows an easy and precise application.

Product Benefits

- Non-sagging and thixotropic formulation
- Excellent adhesion to a wide variety of substrates with little or no surface preparation
- Excellent impact, peel and shear resistance
- Room temperature cured with extended working time

Areas of Application

SikaFast®-3551 is a long open time, flexible adhesive designed to substitute welding, riveting and other mechanical fastening. SikaFast®-3551 is suitable for high strength fastening of joints on different types of substrates including top coats, metals, and plastics, etc., with no or limited surface preparation. 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.

Cure Mechanism

SikaFast®-3551 cures by free radical polymerization. For an ideal curing process it is required to homogeneously mix both components within the defined ratio. SikaFast®-3551 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®-3551 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

If SikaFast®-3551 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®-3551 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	400 ml

Basis of Product Data

All technical data stated in this 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.**

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.

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