

SikaForce[®]-7812 L7 MR

High performance moisture resistant filler for windmill blades

Technical Product Data (typical values) *Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

		Component A SikaForce [®] -7812 L7 MR	Component B SikaForce [®] -7010
Chemical Base		Polyols, filler	Isocyanate derivatives
Color (CQP ¹) 001-1)		White	Brown
Mixed		Beige	
Cure mechanism		Polyaddition	
Density (CQP 006-5))		10 lbs./gal. (1.2 g/cm ³) approx.	10 lbs./gal. (1.2 g/cm ³) approx.
Density Mixed		10 lbs./gal. (1.2 g/cm ³) approx.	
Mixing Ratio		By volume	100 : 42
		By weight	100 : 40
Solid Content		100 %	
Viscosity (CQP 538-2)		Brookfield RVT 6/10	30,000 mPa's, approx.
		Brookfield RVT 5/10	250 mPa's, approx.
Viscosity Mixed		Paste	
Application Temperature		50-90°F (10 to 35°C)	
Application Time ² (CQP536-3)		3 minute approx.	
Pot-Life ² (CQP 536-3)		6 min approx.	
Shore D Hardness ² (CQP 537-2)		80 D approx.	
Tensile Strength (ASTM D638 / ISO 527-2), 1B, 0.08 in/min (2 mm/min)		5800 psi (40 N/mm2) Approx.	
Elongation at break (ASTM D638 / ISO 527-2), 1B, 0.08 in/min (2 mm/min)		2% Approx.	
E-Modulus (ASTM D638 / ISO 527-2), 1B, 0.08 in/min (2 mm/min)		290 ksi (2000 N/mm2) Approx.	
Tensile Lap Shear Strength (CQP-546-2/ISO 4587)		2900 psi (20 N/mm2)	
Tg (DSC ASTM E1356 / ISO 11357-2),		140°F (60°C). Approx.	
Shelf life (storage between 50 and 86°F (10 and 30°C))		12 months	9 months

1) CQP = Corporate Quality Procedure 2) 73°F (23°C) / 50% r.h.

Description

SikaForce[®]-7812 L7 MR is the base part of a two component polyurethane adhesive used with SikaForce[®]-7010 Hardener. This product is manufactured in accordance with ISO 9001 and ISO 14001 quality assurance systems.

Product Benefits

- Thixotropic
- Short application time
- Excellent moisture resistance
- Excellent for wind blade repairs

Areas of Application

Finishing or repair of wind turbine blades (epoxy prepreg). 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.

Industry



Cure Mechanism

The curing of SikaForce®-7812 L7 MR takes place by chemical reaction of the two components. Higher temperatures speed up the curing process; lower temperatures slow down the curing process.

Chemical Resistance

For chemical or thermal exposure, project related testing is recommended. Please contact Technical Service for advice at TSMH@sika-corp.com.

Method of Application

Surface preparation

It is generally necessary to prepare the items for bonding to ensure optimal adhesion and strength. The pre-treatment may consist of sanding, degreasing, corona treatment, priming, etc. Type of pre-treatment must be determined by tests. Please consult our Technical Service for advice at tsmh@sika-corp.com.

Application

After mixing, apply with trowel within the given Application Time and press parts together. Please consult our Technical Service for detailed information at tsmh@sika-corp.com.

Mixing

Manually: Stir the base part thoroughly before use. Add the hardener in the given ratio and stir constantly until a homogeneous mixture is obtained. Apply with trowel within the application time given and press parts together immediately. Please consult our Technical Service for detailed information at tsmh@sika-corp.com.

Removal

Uncured SikaForce®-7812 L7 MR can be removed from tools and equipment with mineral spirits or another suitable solvent. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using a suitable industrial hand cleaner and water. Strictly follow solvent manufacturer's instructions for use and warnings. Do not use solvents on skin!

Overpainting

Compatibility with any paint or painting process must be tested before hand to determine suitability.

Limitations

Suitability of SikaForce®-7812 L7 MR for any given application must be determined beforehand and testing done to validate. This includes but is not limited to: adhesion testing, process compatibility evaluation, performance requirement testing, environmental compatibility evaluation, and health and safety concerns.

SikaForce®-7812 L7 MR

WARNING: IRRITANT. Contains Castor oil (CAS: 8001-79-4), Zeolites (CAS: 1318-02-1), Quadrol (CAS: 102-60-3) and M-DEA (CAS: 13680-35-8). Irritating to eyes. May cause irritation to skin and respiratory system. May be harmful if swallowed.

SikaForce®-7010

WARNING: IRRITANT, SENSITIZER. Contains Polymeric Diphenylmethane Diisocyanate (pMDI) (CAS:9016-87-9), 4,4'-methylenediphenyl diisocyanate (CAS: 101-68-8) and methylenediphenyl diisocyanate (CAS: 26447-40-5). Causes irrieye / skin / respiratory irritation. May cause skin/ respiratory sensitization after prolonged contact. Harmful if swallowed. Deliberate misuse by inhalation of vapors may be harmful or fatal.

HMS

	Part A	Part B
Health	*2	*2
Flammability	1	1
Reactivity	0	1
Personal Protection	D	C

FIRST AID

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.sikausa.com or by contacting (tsmh@sika-corp.com)

- Material Safety Data Sheet
- Product Data Sheet

In case of emergency call:

Chemtrec: 800-424-9300

International: 703-527-3887

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
- FOR PROFESSIONAL USE ONLY

Packaging Information

Auto-mix pouch	300 g (A/B)
Pail	20 kg
Drum	250 kg

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.

Clean Up

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

Further information available at:
www.sikausa.com

Sika Corporation Industry Products
30800 Stephenson Highway
Madison Heights, MI 48071



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.**

Data Sheet, product label and Material Safety Data Sheet prior to product use.

Legal Notes/Disclaimer

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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.sikausa.com or by contacting tsmh@sika-corp.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

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