

Milliken® Infrastructure Solutions

GeoFuse™

Advanced Geopolymer Coating



GeoFuse coating is an advanced elastomeric, acid-resistant coating material that is designed to impart chemical resistance and self-healing properties to concrete and geopolymer surfaces.

GeoFuse is specifically formulated to create a crystalline structure deep within the pores and capillary tracts of the host surface to prevent water penetration. The elastomeric nature of the material allows it to expand and contract with the base material. GeoFuse contains self-healing crystalline materials that are not only a permanent part of the chemical structure, but also continue to grow, thus sealing new cracks or pores as long as moisture is present.

Benefits

- Waterproof protective coating that bonds to virtually any surface including: brick, rock, concrete, metal or wood
- Designed to extend the life of structures
- Premeasured two-part system packaged in a pail for mixing
- Resists cracking and peeling while expanding and contracting with the host surface

MATERIAL DATA	INFORMATION	METHOD
Working Time	60 min at 80°F (27°C)	
Working Temp.	50°F to 95°F / 10°C to 38°C	
Setting Time	30 minutes - 1 hour at 30% humidity	ASTM D-403
Curing Time	2-10 hours at 30% humidity	ASTM C-403
Permeability	0.011 perm rating with 20 mils/min of coating	ASTM D-1653

Typical Uses

The GeoFuse coating can be used for the repair of cracks in pipes and structures in Civil Infrastructure, Gas & Oil and Chemical industries. In addition, it is used to repair:

- Pipelines
- Bridges
- Buildings
- Roads
- Tunnels
- Containment areas

Storage

GeoFuse must be stored in the original unopened containers in a cool dry environment. Product must not be allowed to freeze. If stored under proper conditions, shelf life is one year.

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Composition

A proprietary two part mixture of a geopolymer mortar that is a fine grey powder combined with a thick milky white liquid. When mixed, the two components produce a thick light grey slurry.

Yield and Coverage

Coverage will vary based on application method and thickness. Single package will cover approximately 50 ft² (5.6m²) of a single layer coating.

Work Time

Work time is 30-45 minutes at 90°F (32°C). At 50°F (10°C), work time is 60 - 90 minutes.

Mixing

GeoFuse coating has been premeasured. Combine premeasured powder with liquid in the 5 gallon bucket in which it is shipped. Always add GeoFuse powder to the GeoFuse liquid. Add the powder to the liquid in small increments while mixing continuously.

Mix using a 36" (91mm) square drywall mortar paddle with a ½" variable drive speed power drill. Keep mixing until a homogenous, creamy consistency, with no clumps or dry powder remain. DO NOT ADD ADDITIONAL WATER to the mixture. Only the GeoFuse liquid provided may be used for the GeoFuse coating. Once the powder and liquid are mixed working time is approximately 60 minutes depending upon climate conditions.

Cleaning and Preparation

The surface should be clean and free of loose debris. GeoFuse coating may be applied to a dry or moist surface and does not require pre-treatment or priming.

Application

GeoFuse coating is best if applied with a steel bristle brush, high nap roller or hand trowel.

In the presence of cracks force the compound into the fissure or crack with the ends of the bristles and then work the compound into the opening with the brush ensuring that the compound fills the crack openings being repaired or coated. The process should be repeated for the entire length and breadth of the crack. Excess material should be wiped off the repaired area while smoothing and blending the compound into the surrounding concrete, texturing with the brush. Immediately clean application tools with water prior to hardening.

GeoFuse coating should not be applied if temperatures are below 50°F (10°C) or above 95°F (35°C).

Packaging

GeoFuse coating is available in ready to mix buckets, which include prepackaged mortar and liquid components.

Maintenance

When properly installed, GeoFuse coating is permanent and requires no regular maintenance.

Curing

No special curing process is required for Geo-Fuse coating. Care should be taken to ensure that the repaired area is protected from running water, water puddling, and frost for the first 24hrs after installation. Let fully dry.

Health & Safety

Before using GeoFuse coating read the Safety Data Sheet (SDS) for safe use, health and physical hazard information. An SDS sheet was provided with the material when it was delivered.

GeoFuse coating, is a cementitious powder, is alkaline and may cause significant skin and eye irritation. Directions for treating these problems are clearly listed on the GeoFuse SDS sheet.

This sheet contains health and safety information for the protection of workers and customers. The manufacture recommends that the SDS sheet be available at the work site at all times for access to these treatment solutions if needed. Use with adequate ventilation. Do not take internally.

Keep out of reach of children.

Warranty

Milliken Infrastructure Solutions, LLC warrants this product to be free of defects in material and manufacturing. Should the product prove to be defective, the liability to Milliken Infrastructure Solutions shall be limited to replacement of the product, ex-factory.

Milliken Infrastructure Solutions makes no warranties as to merchantability or fitness for a particular purpose. This warranty is in lieu of all other warranties expressed or implied. Users should determine the suitability of the product for the intended use and assume all risk and liability in connection therewith.

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Before using any Milliken Infrastructure Solutions, LLC product, the user must review the most recent version of the product's technical data sheet, material safety data sheet and other applicable documents, available at infrastructure.milliken.com or by calling 1-855-655-6750.

LIMITED WARRANTY: Milliken Infrastructure Solutions, LLC is very proud of our innovative GeoFuse™ products (the "Products") and our superior customer service. We hereby warrant to the original purchaser that the Products meet Milliken's standard specifications at the time of delivery from us. If the Products are found to be defective because they do not meet this Warranty, then we will as the sole remedy either (at our option) refund the purchase price for those Products or provide replacement Products (in either case, not including shipping, installation or any other cost). Naturally, we are not responsible or liable for degradation, damage, liability or defect in, or related to, the Products caused by improper storage, use, installation or maintenance, any other party's representations, warranties, actions, or omissions, or acts of God. WE MAKE NO REPRESENTATION OR WARRANTY BEYOND THE EXPLICIT STATEMENTS CONTAINED IN THIS WARRANTY, AND ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, INFRINGEMENT, OR ANY WARRANTIES BASED UPON SAMPLES, MODELS, OR SPECIFICATIONS, ARE HEREBY EXPRESSLY DISCLAIMED. NOTWITHSTANDING ANYTHING TO THE CONTRARY, IN NO EVENT SHALL WE BE LIABLE TO THE ORIGINAL PURCHASER OR ANYONE ELSE FOR ANY CONSEQUENTIAL, INDIRECT, SPECIAL, OR EXEMPLARY (OR ANY SIMILAR TYPE OF) DAMAGES RELATED TO THE PRODUCTS. As each customer's use of our Products and situation may be different, information we provide, including without limitation, use or installation suggestions, test results, samples, etc. is provided in good faith but without warranty and without accepting any responsibility or liability. Each customer must test and be responsible for its own specific use, installation, application, etc. All sales are exclusively subject to our standard terms of sale posted at www.milliken.com/terms (all additional/different terms are rejected) unless explicitly agreed otherwise in a signed writing. This Warranty is governed by the laws of the United States and the State of South Carolina, U.S.A. (without giving effect to its conflict of law principles), and any party desiring to take action under this Warranty hereby submits to the exclusive jurisdiction of the courts in such jurisdiction and waives any inconvenient forum claims related thereto. In the unlikely event that you have a warranty issue, please contact your distributor or sales representative to discuss and resolve the matter in accordance with this Warranty.