# **Concrete Foundation Crack Repair**

WITH EMECOLE 301 OR 302 SURFACE SEAL

# Use Emecole's surface seal for dependability and ease of application.

## Emecole 301

Emecole 301 is a 2-component, solvent free, moisture-insensitive, smooth-paste epoxy adhesive.

It is a rapid-curing sealer for more efficient pressure-injection grouting of cracks.

Emecole 301 Original Surface Seal has a low odor compared to other mercaptan based surface seals and cures to a hard solid.

Injection can begin 30 to 60 minutes after being applied to cracks depending on temperature.

Not recommended for applications other than surface sealing.







WATERPROOFING & FOUNDATION REPAIR

Toll-Free: 1-888-744-4925 www.dampbasements.com

## Emecole 302

Emecole 302 is a 2-component, solvent free, moistureinsensitive, smooth-paste epoxy adhesive.

Emecole302 is a very rapid-curing sealer, even in thin film, for more efficient pressureinjection grouting of cracks.

Injection can begin 20 minutes after being applied to cracks depending on temperature.

New smooth-paste consistency for vertical, horizontal, and overhead crack sealing.

Not recommended for applications other than surface sealing.



#### **RECOMMENDED PROCEDURE FOR SURFACE SEALING**

### Emecole 301

The Emecole 301 for surface seal is designed to give a soft, creamy, easy-to-mix consistency, even at low temperatures.

I. At room temperature (55-85°F), Emecole 301 will exhibit a working life of 6-8 minutes. At these temperatures, it is best to mix parts A and B thoroughly for 1-2 minutes and immediately begin to apply to the surface. This is especially relevant in the summer months where the components may be at 75 95°F, and the product will be setting up in the mixing vessels within 4-7 minutes after mixing. Under these circumstances, the surface should be ready for injection 20-30 minutes after Emecole 301 was originally mixed.

II. At cooler temperatures (35-55°F), Emecole 301 will exhibit a working life of 8-12 minutes. At these temperatures, it is best to mix parts A and B thoroughly for 1-2 minutes and then allow an induction period for the system to begin developing its own heat of reaction. This may take 2-6 minutes after the mixing was initiated. It is best to use a metal container for mixing so the operator can feel the beginning of development of heat on the walls of the can. The time that the surface is ready for injection is dependent on the temperature of the surface. Using this recommended procedure would permit the surface to be ready at the earliest time and may be as rapid as experienced in warmer circumstances.

Both Procedures I and II are geared to a working life of 5-8 minutes for the surface sealing and setting injection ports. Therefore, do not mix more than is anticipated to be processed in 5-8 minutes.

It is also recommended that if one mix is sufficient to prepare the crack, prepare the crack planning on setting the bottom port last (or the port which will be first used in the epoxy injection). If more than one mix is needed to prepare the crack, use the first mix to prepare the section that will be first used in epoxy injection.

For example, consider a crack on a vertical surface. Typically, the injection process will begin at the bottom of the crack and working one's way up the crack. If it is going to take less than 5-6 minutes to do the setting of the ports and sealing the surface, begin applying Emecole 301 at the top of the crack and plan on setting the bottom port last. If it is going to take 2 or more mixes to seal the crack, begin setting the section with the first mix planning to finish this batch with the setting of the crack above this section with the subsequent mix(es).

The reason for the above technique(s) is that the longer the material is in the mixing container before being applied to the surface (which typically is at a temperature of 40-70°F) the more heat history it is developing. As a result, the last material applied to the surface will harden the fastest. Using this technique should assure that the material on the surface closest to the port(s) where injection will be initiated to be the most advanced in the curing process. Furthermore, if the surface is cool to cold (which would slow the hardening process), the material has had more time to initiate its hardening period. The procedure is particularly recommended in the colder months.

## Emecole 302

The Emecole 302 for surface seal is designed to give a easy-to-mix consistency even at low temperatures. Its thixotropic paste consistency will not sag even when hot from its curing process (exothermic reaction during cure).

At room temperature (75°F), Emecole 302 will exhibit a working life of 4-5 minutes. At these temperatures, it is best to mix parts A and B thoroughly for 45 seconds and immediately begin to apply to the surface. This is especially relevant in the summer months where the components may be at 75-95°F, and the product will be setting up in the mixing vessels within 3-4 minutes after mixing. The surface should be ready for injection 15-20 minutes after Emecole 302 was originally mixed.

## Do not mix more than what is anticipated to be processed in 4 minutes.

It is also recommended that if one mix is sufficient to prepare the crack, prepare the crack planning on setting the bottom port last (or the port which will be first used in the epoxy injection). If more than one mix is needed to prepare the crack, use the first mix to prepare the section that will be first used in epoxy injection.

For example, consider a crack on a vertical surface. Typically, the injection process will begin at the bottom of the crack and working one's way up the crack. If it is going to take less than 4 minutes to do the setting of the ports and sealing the surface, begin applying Emecole 302 at the top of the crack and plan on setting the bottom port last. If it is going to take 2 or more mixes to seal the crack, begin setting the section with the first mix planning to finish this batch with the setting of the crack above this section with the subsequent mix(es).

The reason for the above technique(s) is that the longer the material is in the mixing container before being applied to the surface (which typically is at a temperature of 40-70°F) the more heat history it is developing. As a result, the last material applied to the surface will harden the fastest. Using this technique should assure that the material on the surface closest to the port(s) where injection will be initiated to be the most advanced in the curing process. Furthermore, if the surface is cool to cold (which would slow the hardening process), the material has had more time to initiate its hardening period. The procedure is particularly recommended in the colder months.



