

Improper treatment of cracks and incorrect sub floor preparation are often sources of moisture penetration causing floor failure. Laminin has developed systems to resolve these issues. After the slab has been properly prepared by grinding or shot blasting, vacuumed and tacked, the substrate should be prepared for all flooring installations; including moisture mitigation or resinous coatings using the following products:

### A) TREATMENT OF CRACKS AND GAPS

#### 1. Hairline or Spider Web Cracks:

They are typically less than 1/32" wide and only topical. They do not need to be treated prior to application of sealers.

#### 2. Stress Cracks or Relief Cuts:

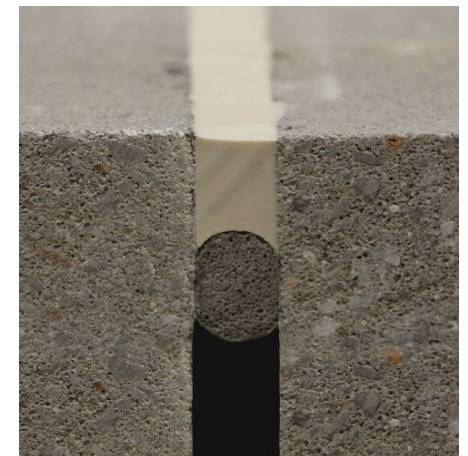
They are over 1/32" up to 1/8" wide. Widen cracks to at least 1/8" and make 3/8" deep cross cuts about every foot. Insert brackets into cross cuts and fill with crack filler such as **Colossal 117 MJF - Movement Joint Filler**. Spread dried sand over crack filler and remove excess sand after crack filler has dried.

#### 3. Relief cuts or non-moving voids:

They are over 1/8" wide and may go all the way through to the bottom of the slab. A backer rod will need to be inserted into the void to retain the crack filler. Make cross cuts about every foot and insert brackets. Fill all voids with crack filler such as **Colossal 117 MJF - Movement Joint Filler**. Spread dried sand over crack filler and remove excess sand after crack filler has dried.

#### 4. Dynamic or Moving Joints:

Intentional separations between two sections of concrete that allow for expansion and contraction. They need to be honored throughout the entire installation. Insert a backer rod into the dynamic joint. Compound should be filled to a depth of 2x the width of the joint. Fill this void with permanently flexible and moisture resistant joint filler such as **Colossal 117 MJF Movement Joint Filler**. After joint filler has dried (approx. 1 hour) it can be covered with the same primer, sealer, leveler or adhesive as is used on the rest of the floor.



### B) TREATMENT OF HOLES AND DEPRESSIONS

#### 5. Large Cracks, Holes and Low Areas:

Patching over high moisture subfloors requires a special system that will not deteriorate over time. **Colossal 117-EPS Primer and Sealer** is a two part water-based epoxy. When mixed with **Laminin Feather Patch** in lieu of water, the material becomes a moisture resistant patch or skim coat capable of withstanding any amount of moisture. The **Colossal 117-EPS** 2-1/2 quart unit can be mixed with a minimum of 5 lbs. **Laminin Feather Patch** to address excessive cracks and minor variations. Mixtures with up to 10 lbs. of **Colossal 117 MJF - Movement Joint Filler** can be used to build ramps, fill depressions or large holes.





## **6. Covering Ceramic Tile and Grout Joints**

Patching over ceramic tiles cannot be performed with water based products since the subfloor is non-absorbent. **Colossal 117-EMB Epoxy Moisture Barrier** and fine dried sand is a system designed to fill and smooth out ceramic tile and grout joints when resinous coatings or any flooring types are going to be applied over them. Mix 1 gallon of **Colossal 117-EMB** with 10 lbs. of 70 mesh **Silica Sand** to create a patch that will act as a bonding agent over ceramic tile and fill in grout joints.

## **7. Filling Depressions over Large Areas or Deep Holes**

For very deep holes or large depressions a more economical patch can be applied. **Colossal 117-EMB** can be used to create an inexpensive; yet water resistant patch for filling large or deep voids. Mix one gallon of **Colossal 117-EMB** with 50 lbs. of dry **Play Sand**. This will result in a mortar like consistency that can be manually spread over the area to be leveled. This patch cannot be feathered and needs to be installed at a thickness of at least 1/8" or greater. . After a 4-8 hour cure time the edges can be feathered using the fore mentioned **Colossal 117-EPS/Laminin Feather Patch** mixture. Finally, the entire area should be covered with **Colossal 117-USL Urethane Self-Leveler** or other suitable materials that covers the different structures of the materials used.

## **C) MOISTURE RESISTANT, SELF-LEVELING COMPOUND**

### **8. Moisture-Resistant, Self-Leveling Compound to be Installed Under any Surface**

Many subfloors require both, a moisture barrier and a self-leveling compound. This can be achieved with the following products: **Colossal 117-EPS Primer and Sealer** is be applied with a 3/8 nap roller (yield up to 320 SF/gal). This two part water-based epoxy Primer creates a strong bonding agent for subsequent products. The primer is white during installation and turns clear within 2-4 hours as it cures. After the primer has dried the leveler is installed. **Colossal 117-USL Urethane Self-Leveler** is a two component urethane leveling compound capable of creating a moisture Barrier up to 18# CC or 97% RH. Work can commence within four hours; enabling flooring installation to begin the same day. The membrane must be applied at a minimum of 1/32" (yield up to 50 SF/G) with a #11 disposable rake trowel blade, but can be leveled up to any thickness, e.g. filling utility trenches. Due to the pliable/flexible characteristics, **Colossal 117 MJF - Movement Joint Filler** provides crack isolation. The unique qualities of this compound have generated third-party testing, which shows resiliency that provides relief from joint discomfort as a result of standing or walking on floors that typically are unforgiving such as concrete. **Colossal 117 MJF** is extremely durable and may be used in conjunction with other Laminin products.