

# EPOXY-Multiuse

## Two-Component, Multipurpose Epoxy Floor Coating, Mortar Binder, and Topcoat

### CSI Div. 07 & 09

- 07 18 00 Traffic Coatings
- 07 18 13 Pedestrian Traffic Coatings
- 09 67 00 Fluid-Applied Flooring
- 09 67 23 Resinous Flooring
- 09 96 13 Abrasion-Resistant Coatings
- 09 96 35 Chemical-Resistant Coatings
- 09 96 56 Epoxy Coatings

### Product Description:

EPOXY-Multiuse is a two-component, 100% solids, multipurpose epoxy that can be used as an interior floor coating, mortar binder and topcoat. It also functions as a base coat/primer for EPOXY-Multiuse coating and mortar applications. EPOXY-Multiuse's low odor, low VOC, formula makes it ideal for resurfacing floors in occupied buildings.

**Typical Applications:** EPOXY-Multiuse can be used for a wide range of interior floor applications including:

- Commercial kitchens, bakeries, and breweries
- Dairies, meat processing facilities, food production plants
- Pharmaceutical and vitamin production plants
- Light industrial factories and warehouses
- Hospitals, health care centers and medical facilities
- Laboratories, scientific testing and research facilities
- Automotive showrooms and repair shop areas

### Advantages:

- 100% solids, thermosetting formula
- Low VOCs and low odor during installation
- Complies with USDA, FDA, and Food Safety Modernization Act
- Meets LEED® and Green Seal® requirements
- Creates a tough, durable, slip-resistant floor with select aggregate
- Excellent chemical and abrasion resistance

### Site Mock-up:

Aquafin recommends installation of a field sample of min. 100 ft<sup>2</sup> (9.29 m<sup>2</sup>) at the project site or other pre-selected area as agreed to by owner's representative and applicator.

- Apply all materials to field sample area in the correct sequence. Follow all manufacturer's written instructions.
- Maintain field sample during construction for workmanship comparison. Use field sample as standard for judging color and texture on remainder of project. Do not alter, move, or destroy field sample until work is completed and approved by owner's representative.

### Substrate Preparation:

- All substrates must be strong, solid, and stable.
- All surfaces must be clean and free from loose sand, dirt, dust, laitance, efflorescence, form release agents, curing compounds, sealers, paint, adhesives, existing coatings, oil, grease and other foreign substances that could interfere with adhesion.

Physical and Technical Data	
Mix Ratio, by Volume:	2 part A:1 part B
Viscosity (mixed EPOXY-Multiuse):	550 to 750 cps
Pot Life @ 75°F (24°C) / 50% RH:	20 minutes
Dry to Touch @ 60°F to 90°F (15°C to 32°C):	6 to 12 hours
Recoat Time @ 60°F to 90°F (15°C to 32°C):	12 to 24 hours
Light Traffic @ 60°F to 90°F (15°C to 32°C):	greater than 48 hours
Full Cure @ 60°F to 90°F (15°C to 32°C):	7 to 14 days
Mechanical Properties at 77°F (25°C) 7 day cure (unless otherwise stated)	
Tensile Strength, ASTM D638:	2,500 psi (17.2 MPa)
Tensile Elongation, ASTM D638:	20%
Adhesion, ASTM D7234, (concrete failure):	>400 psi (2.75 MPa)
Hardness (Shore D), ASTM D2240:	67 - 72
Compressive Strength, ASTM D695:	10,000 psi (68.9 MPa)
Dynamic Coefficient of Friction, ANSI 326.3, BOT 3000E: (testing to be performed at jobsite)	> 0.45 (inclines) > 0.42 (level)
Taber Abrasion Resistance, ASTM D4060:	1,000 g load, wheel #17, loss 0.05 g/1,000 cycles
Water Absorption, ASTM D570	0.1%
Microbial (fungi) Resistance, ASTM G21	Pass <1
VOCs:	< 5 g/L
All data are average values obtained under laboratory conditions. In practical use temperature, humidity and absorbance of the substrate may influence the above given values. Dynamic coefficient of friction values will vary depending on final surface texture achieved at the jobsite.	

- For oil-contaminated/grease-contaminated concrete slabs, contact Aquafin Technical Department or your local Aquafin Sales Representative for information about VAPORTIGHT COAT®-SG2.
- Concrete must be at least 28 days old, and must have reached a minimum 3,000 psi (20 MPa) compressive strength.
- Mechanically prepare new and existing concrete surfaces to a CSP (concrete surface profile) of 2 - 3 per the International Concrete Repair Institute (ICRI) Guideline No. 310-2R-2013. Standard acid etching is

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NOT allowed. The concrete must be dry before application of EPOXY-Multiuse.

## Concrete Moisture Testing:

Aquafin recommends moisture testing of all concrete slabs prior to application of EPOXY-Multiuse. However, moisture testing is only a guideline and can be influenced by environmental factors. When in doubt, contact Aquafin Technical Department or your local Aquafin Sales Representative for information about Aquafin VAPORTIGHT COAT®-SG products.

- **Interior Concrete Slabs:** Aquafin recommends testing to determine moisture vapor emission rate (MVER) including "Anhydrous Calcium Chloride" testing as per ASTM F 1869 on slabs to be treated, to determine the MVER in  $\text{lb}/1000 \text{ ft}^2 \cdot 24 \text{ hrs}$  ( $\text{grams}/\text{m}^2 \cdot \text{hr}$ ) and to determine RH content (%) as per ASTM F 2170. **Do not use EPOXY-Multiuse as a base coat/primer when readings are higher than 3 lbs MVER or 80% RH.**

## Mixing:

- Epoxy resins are temperature sensitive and care should be taken to condition all components to between 70°F to 80°F (20°C to 26°C) for a minimum of 24 hrs. prior to mixing and placement. Large units of EPOXY-Multiuse may need 48 hrs.
  - Use chemical resistant gloves and goggles when mixing EPOXY-Multiuse.
1. Do not alter mixing ratios. The volume mixing ratio is 2 parts component A to 1 part component B (2A:1B).
  2. Pre-mix the "A" and "B" components of EPOXY-Multiuse individually to ensure all raw materials are dispersed uniformly. When using the larger 15 gal or 150 gal kit, accurately measure out each part before combining together. When using the 1.5 gal and 3 gal size kit, mix a complete kit of EPOXY-Multiuse in the proportions supplied.
  3. Combine A and B components of EPOXY-Multiuse, and mix to a uniform consistency (approx. 3 - 5 minutes) using a slow speed drill (approx. 300 to 450 rpm) with a jiffy mixing blade. Occasionally scrape the bottom and sides of the container while mixing. Avoid entrapping air. Do not mix in an up and down motion.
  4. (optional additions to the mix)
    - **Color Packs (when using EPOXY-Multiuse Color Packs):** Add an EPOXY-Multiuse Color Pack to the EPOXY-Multiuse mixture and mix again (approx. 3 minutes) to a homogenous streak-free color and consistency.
    - **Aggregate (when using EPOXY-Multiuse as a trowel-applied mortar):** Reserve enough mixed EPOXY-Multiuse to be used neat as a base coat/primer in the application area. Then add clean, washed, dry, tri-blend aggregate to the remaining mix. The use of 3/8" pea gravel is recommended in addition to the tri-blend aggregate when applying at 2" (50 mm) thick. As a general rule, the epoxy mortar should be applied 3 times the thickness of the maximum aggregate size used in the mix. The ratio of EPOXY-Multiuse to aggregate is typically 75 lbs. of aggregate per gal. of EPOXY-Multiuse.

Once mixed, apply immediately!

## Application:

Read all instructions thoroughly prior to installation.

- Air and substrate temperatures must be between 60°F to 90°F (16°C to 32°C).
- Dew Point must be 5°F (3°F) or more below the surface temperature.
- Do not apply if humidity is at or above 95%.
  - **Base coat/primer, floor coating, grout coat/lock coat, or topcoat (neat):** After mixing, immediately pour EPOXY-

Multiuse onto the concrete in ribbons. Distribute and spread material evenly using a V-notched rubber squeegee and 3/8" nap non-shedding phenolic core roller. Use a 3" disposable brush where required for cutting-in. Back-roll and cross-roll all areas to facilitate a smooth finish. Measure the thickness of each coat using a wet film gauge. As a minimum, it is recommended to check the mil thickness in every corner, plus the center areas of the room. Large areas will require many check points. When applying multiple coats, verify that the total WFT (wet film thickness) meets the stated recommendations. See coverage chart for recommended WFT (wet film thickness), depending on the type of use. Allow to cure, pay close attention to recoat times, and apply the next coat in the system within 24 hours [based on 75°F (24°C) and 50% RH].

- **Floor coating with sand broadcast:** Follow above instructions for coating application, and then immediately (within 2 minutes) broadcast clean, oven dried #20 - 50 silica sand [ASTM E11 No. 18 - 35 sieve size (0.5 - 1.0 mm dia.)) to "rejection" (full broadcast), or at a rate up to 30 - 50  $\text{lb}/100\text{ft}^2$  (1.5  $\text{kg}/\text{m}^2$ ) into the fresh/wet layer of EPOXY-Multiuse. Allow to cure for approx. 48 hours [based on 75°F (24°C) and 50% RH]. Remove excess sand by sweeping, vacuuming, and compressed air. Allow to cure, pay close attention to recoat times, and apply a grout coat/lock coat of EPOXY-Multiuse within 24 hours [based on 75°F (24°C) and 50% RH]. Allow to cure, pay close attention to recoat times, and then apply a topcoat of EPOXY-Multiuse within 24 hours [based on 75°F (24°C) and 50% RH].
- **Trowel-applied Mortar:** After applying EPOXY-Multiuse (neat) to the application area as a base coat/primer, pour EPOXY-Multiuse mixed with aggregate onto the application area while base coat/primer coat is still fresh/wet. Spread material using a trowel or a gauge rake and finish with a flat trowel to create a smooth surface. Mortar can be applied up to 2" (5 cm) in a single lift. Allow to cure and pay close attention to recoat times. If a grout coat/lock coat is required, apply within 24 hours [based on 75°F (24°C) and 50% RH]. Allow to cure, pay close attention to recoat times, and then apply a topcoat of EPOXY-Multiuse within 24 hours [based on 75°F (24°C) and 50% RH].

**Note:** A clear topcoat of EPOXY-Multiuse (neat) in the Clear color will extend the life of the coating system, and is generally recommended in all heavy traffic areas. For an additional layer of chemical resistance or gloss, a clear urethane-based finish coat can be applied over the topcoat in any of the applications described above.

## Clean-up:

Clean tools and equipment with Methyl Ethyl Ketone (MEK), Xylene, or similar product immediately after use. Cured material must be removed mechanically. Soaking tools in an epoxy-stripper will help when mechanical removal is necessary.

## Maintenance

A good maintenance program will help extend the life of any installed coating and ensure that it is safe for its intended purposes. Aquafin recommends daily cleaning and inspection of the coating with spot repairs as needed.

## Limitations:

- EPOXY-Multiuse is for interior use only. Contact Aquafin Technical

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Department or your local Aquafin Sales Representative for Aquafin product recommendations in exterior applications.

- Do not mix more material than can be used within 20 minutes [based on 75°F (24°C) and 50% RH].
- Do not thin or dilute.
- High temperatures, high humidity, large batches, and thicker applications will significantly reduce the working time and cure time. Lower temperatures and/or low humidity will extend the cure time.
- Contact Aquafin Technical Department or your local Aquafin Representative for guidance in conditions outside the stated temperature limits.
- Once containers have been opened, use material as soon as possible.
- Scratches in certain colors may appear white.
- Color may vary due to batch to batch variation, always “box” different batches to avoid it.

## Note:

Proper application is the responsibility of the user. Field visits by AQUAFIN personnel are for the purpose of making technical recommendations and not for supervising or providing quality control on-site.

## Packaging:

- [1.5 gallon kit \(5.7 L\)](#)  
Component A: (1) 1 gal can (3.78 L)  
Component B: (1) 0.5 gal can (1.89 L)
- [3 gallon kit \(11.4 L\)](#)  
Component A: (1) 2 gal pail (7.57 L)  
Component B: (1) 1 gal can (3.78 L)

- [1.5 gallon kit \(56.8 L\)](#)  
Component A: (2) 5 gal pails (18.9 L)  
Component B: (1) 5 gal pails (18.9 L)
- [150 gallon kit \(567 L\)](#)  
Component A: (2) 55 gal drum (208 L)  
Component B: (1) 55 gal drum (208 L)

NOTE: Sand aggregate is sold separately and is not included in kits.

## Colors:

- EPOXY-Multiuse is available in 3 factory blended colors: Medium Gray, Tan and Clear.
- An additional 5 colors are available by mixing EPOXY-Multiuse in the Clear color with EPOXY-Multiuse Color Packs which are available in Light Gray, Dark Gray, White, Red, and Safety Yellow. Refer to the current EPOXY-Multiuse Color Packs Technical Data Sheet for more information.

## Shelf Life & Storage:

- 12 months in unopened, original packaging when stored at temperatures between 40°F to 90°F (4°C to 32°C).
- Keep containers closed, store in a dry, cool place away from heat, direct sun, sparks, open flame, and moisture.
- Protect material from freezing.

## Safety:

Refer to SDS. For commercial use only. Avoid contact with skin and eyes. Wear rubber gloves and safety goggles during mixing and application. After contact with skin, wash with plenty of water. In case of eye contact, rinse immediately with plenty of water for 15 minutes and seek medical advice. KEEP OUT OF REACH OF CHILDREN.

EPOXY-Multiuse - Coverage Rates						
Type of Use	Number of Coats	WFT (Wet Film Thickness) Per Coat		Total WFT (Wet Film Thickness)		Approx. Coverage Rate Per Gallon
		(in mils)	(in mm)	(in mils)	(in mm)	
As a Base Coat/Primer	1	10	0.25	10	0.25	160 ft <sup>2</sup>
As a Standard Performance Floor Coating over EPOXY-Multiuse as a Base Coat/Primer or over VAPORTIGHT COAT®-SG3	1	20	0.5	20	0.5	80 ft <sup>2</sup>
As an Improved Performance Floor Coating with a Broadcast over EPOXY-Multiuse as a Base Coat/Primer	2	20	0.5	40	1.0	40 ft <sup>2</sup>
As a High Performance Floor Coating with a Broadcast over VAPORTIGHT COAT®-SG2 with a broadcast	4	20	0.5	80	2.0	20 ft <sup>2</sup>
As a Grout Coat/Lock Coat over a Broadcast	1	10	0.25	10	0.25	160 ft <sup>2</sup>
As a Trowel-applied Epoxy Mortar with the Addition of Aggregate	1		up to 50 mm (2")		up to 50 mm (2")	
As a Topcoat	1	10	0.25	10	0.25	160 ft <sup>2</sup>

**Notes:** Application rates and yield values are approximate. Actual coverage may vary due to texture and absorption of substrate. Failure to achieve the recommended mil thickness will compromise product performance. It is the applicator's responsibility to verify that the recommended mil thickness has been attained. Improved Performance Applications with broadcast do not include sand aggregate in the WFT measurement. The recommended WFT must be achieved neat. The sand aggregate broadcast will add additional thickness. High Performance Applications over VAPORTIGHT COAT®-SG2 must be applied thick enough to completely cover the sand aggregate broadcast over VAPORTIGHT COAT®-SG2 and still achieve the minimum WFT neat. The sand aggregate broadcast over EPOXY-Multiuse will add additional thickness. Coverage for trowel-applied mortar applications will vary, based on the amount of aggregate mixed with EPOXY-Multiuse.

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LIMITED WARRANTY: AQUAFIN, INC. warrants this product for a period of one year from the date of installation to be manufactured free of defects and to be consistent with its technical properties as stated in our current Technical Data Sheet. This product must be used as directed and within its stated shelf life. AQUAFIN INC. will replace or at our discretion refund the purchase price of any product, excluding cost of labor, which is proven to be defective. Our product recommendations are based on industry standards and testing procedures. It is the buyer's obligation to test the

suitability of the product for an intended use prior to using it. We assume no warranties written, expressed or implied as to any specific methods of application or use of the product. AQUAFIN INC. MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. AQUAFIN, INC. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay. Any claim for a defective product must be filed within 30 days of discovery of a problem, and must be submitted with written proof of purchase.

**For Professional Use Only.**

## EPOXY-Multiuse is available in the following standard factory blended colors:



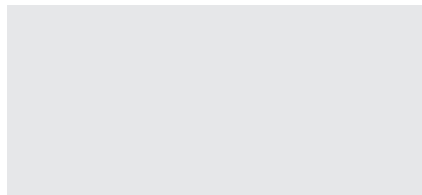
**MEDIUM GRAY**

**CLEAR**



**TAN**

## EPOXY-Multiuse Color Packs are available in the following colors:



**LIGHT GRAY**



**DARK GRAY**

**WHITE**



**RED**



**SAFETY YELLOW**

Color Chart is a representation of the actual color only. Every effort has been made to reproduce these color samples as faithfully as possible. Color variations between batches may exist. Colors may vary due to differences in surface texture, lighting, and methods of application. When ordering additional units, make sure you request the same batch number. You will find the batch number on the product label. Not all colors are readily available. Some colors might require a minimum order quantity. Contact Aquafin with questions regarding colors prior to ordering any materials or starting a project.