

# EM-CRYL 600 FORTIFIER

Acrylic Latex Fortifier  
For Cement And Gypsum Mixes  
Interior or Exterior Use

**ADDITIVE**

**BONDING AGENT**

## MANUFACTURER:

Empire Blended Products, Inc.  
250 Hickory Lane • Bayville, NJ 08721  
(732) 269-4949 • Fax (732) 269-0497

## PRODUCT DESCRIPTION:

*EM-CRYL 600* is a non-reemulsifiable, architectural grade, modified acrylic latex admix for Portland cement and gypsum based mixes. *EM-CRYL 600* has been formulated to enhance performance by improving the strength, flexibility, adhesion, water resistance and curing properties when added to mixes.

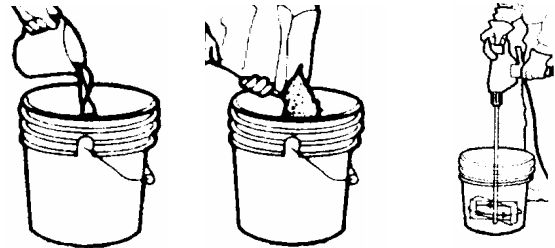
## USES:

*EM-CRYL 600* is the gauging liquid for EMPIRE BLENDED FLOOR ALL and the bonding liquid for EMPIRE BLENDED SEAL MASONRY COATING when applied over dense or previously painted concrete or masonry. It is used in many other EMPIRE BLENDED products such as SURFACE BONDING CEMENT, FOUNDATION COAT and THIN SET, as well as in:

- Repointing mortars
- Bedding mortars for tile, brick, flagstone, etc.
- Pool, pipe and tank lining
- Stucco, thin set and terrazzo
- Thin overlays to patch, level, and resurface existing floors and walls

## ADVANTAGES:

## INSTALLATION:



*EM-CRYL 600*, when added to cement and gypsum based mixes:

- Increases bond strength and improves adhesion
- Improves strength, flexibility and hardness
- Improves flexural, tensile and shear bond strength
- Helps reduce shrinkage and improves crack resistance
- Increases water resistance and helps resist moisture penetration
- Increases chemical and abrasion resistance
- Enhances cure, eliminating the need for moist curing
- Improves workability of mix
- Increases weather resistance and frost proof qualities
- After curing, accepts modified cement based paints, latex paints and most water based mastics
- Will not reemulsify or soften even in underwater applications
- Is non-toxic, non-flammable and non-corrosive to steel and metal
- Is unaffected by numerous freeze-thaw cycles after curing
- Can be used inside or outside, on floors or walls, above or below grade
- Is non-staining
- Is unaffected by sunlight
- Is VOC compliant

## Surface Preparation:

All surfaces to receive mixes modified with *EM-*

*CRYL 600* must be clean, structurally sound, and free of paint, oil, grease, wax, dirt, mildew, soil, release agents, efflorescence and other foreign matter. All spalled and scaled material must be removed. Very dense or smooth areas may require etching with muriatic acid or RAINBOW DRY ACID CRYSTALS dissolved to appropriate concentration to achieve a surface having the appearance of fine sandpaper. If an acid wash is used, it must be neutralized with copious amounts of water before application of *EM-CRYL 600* modified mix. Surfaces to receive material may be damp but should be free of running or standing water.

**Mixing:**

Stir or shake *EM-CRYL 600* before use. Thoroughly premix all dry ingredients first. If *EM-CRYL 600* is to be used diluted, mix with water first, then with the dry material to ensure proper dispersion throughout the mix. In a clean mixer or container add the dry blended mix to the liquid and stir or blend slowly. When using a drill mixer, the drill should be of sufficient size to turn through the mix at low speed to eliminate overmixing and to avoid the entrapment of air in the mix. Mix for a short time (1-2 minutes) or just until all material is wet down, lump-free and to the desired consistency suitable for the application at hand. Mix thoroughly, but do not overmix, as this will entrap excessive air, reducing strength and adhesion.

**Placement:**

After mixing, promptly place *EM-CRYL 600* modified material with a steel trowel. Do not over-trowel. The trowel should be kept clean to avoid pulling. Very little pressure should be used when finishing. Lubricate trowel as needed with a 50/50 mix of *EM-CRYL 600* and water to prevent wet drag. Clean trowel frequently. For larger areas, a metal straight edge may be used to screed the mix, using a short vibratory stroke while keeping a buildup of material ahead of the screed. Wash hands and equipment with water immediately after use.

**Bond Coats:**

In certain applications, it may be desirable to increase the already high bond strength of a mix modified with *EM-CRYL 600*. If the concrete or masonry to be covered is dense, a brush, spray or roll-on coat of undiluted *EM-CRYL 600* should

be used. For rough or spalled areas, a slurry coat of *EM-CRYL 600*, undiluted, mixed with pure Portland cement to the consistency of a batter should be liberally brushed on the area to be covered. In either case, the bond coat should not be allowed to set before the finishing material is applied.

**Curing:**

*EM-CRYL 600* is self-curing under normal conditions; therefore, damp curing is not recommended. Do not use membrane curing compounds or blankets. In hot, dry, sunny or windy conditions a cover of damp burlap or plastic should be used to enhance strength. The surface should be ready for light use in 24-48 hours and heavy traffic in 96 hours. Allow to cure for 7 days in wet areas such as pools.

**Coverage:**

When used as a bonding agent at full strength, 1 gallon will cover approximately 250-300 square feet over dense concrete or masonry, or 150-200 square feet over concrete block or brick.

**Packaging:**

Quarts (12 per case), Gallons (4 per case), 5 Gallon Pails and 55 Gallon Drums

**Color:**

Milky white, clear when dry

*EM-CRYL 600*  
**SUGGESTED PROPORTIONS**

EMPIRE BLENDED FLOOR ALL  
SLURRY COATS  
FLOOR PATCHING & RESURFACING  
MAXIMUM BONDING

Use Undiluted

EMPIRE BLENDED SURFACE BONDING CEMENT  
EMPIRE BLENDED FOUNDATION COAT  
TROWEL APPLIED OVERLAYS & TOPPING  
STUCCO & CEMENT PLASTER

Use 1 Part *EM-CRYL 600*  
to 2 Parts Water

EMPIRE BLENDED SEAL MASONRY COATING  
EMPIRE BLENDED THIN SET  
EMPIRE BLENDED TILE GROUT  
EMPIRE BLENDED FLOOR GROUT  
POINTING MORTARS  
BRUSH APPLIED COATINGS

Use 1 Part *EM-CRYL 600*  
to 3 Parts Water

The above are suggested starting formulas only under normal conditions. For more critical bonding increase the content of *EM-CRYL 600* in the mix. If in doubt, apply a test patch.

**TECHNICAL DATA:**

pH.....8 - 9  
Water Soluble ..... 100%  
Density.....8.7 lbs./gallon

Strength comparisons:

3 to 1	3 to 1
Sand Cement Mortar	Sand Cement Mortar With <i>EM-CRYL 600</i>

Compressive.....4200 psi ..... 5600 psi  
Flexural.....800 psi ..... 1000 psi  
Tensile .....360 psi ..... 675 psi  
Shear Bond.....120 psi ..... 440 psi  
Impact..... 7 inch lbs .....20 inch lbs

**LIMITATIONS:**

*EM-CRYL 600* modified mixes should not be applied when temperature is below 45°F or will fall below 45°F within 48 hours. PROTECT FROM FREEZING. Do not use with air-entrained cement or additives.

**CAUTION:**

Harmful if swallowed. If swallowed, induce vomiting and call physician immediately. May cause irritation to eyes and skin. Avoid contact. In case of skin contact wash affected area with soap and water. In case of eye contact, flush with water for 15 minutes and get prompt medical attention. The use of impervious rubber gloves and goggles is recommended when handling. Use with adequate ventilation and avoid breathing vapors and spray mist. Can cause irritation of the nose, throat and lungs.  
**Keep Out Of Reach Of Children.**

**WARRANTY:**

Due to the use of this product beyond our control, we assume no liability for damages of any kind, and the user accepts the product "as is" and without warranties, expressed or implied, from either Empire Blended Products or its agents. The suitability of the product for an intended use shall be solely up to the user. Our only obligation shall be to replace or pay for any

material proved defective, with our liability limited to the purchase price of materials supplied by us.