

REPLIC-8

Custom Cement-Based Replication Mixes For Historic Concrete

DESCRIPTION:

REPLIC-8 is a series of custom-formulated replication mixes for repair or replacement of historic concrete and other cementitious substrates.

REPLIC-8 provides esthetically and mechanically compatible repair or replacement for substrates weakened by weathering, carbonation or degradation of cementitious components.

REPLIC-8 incorporates binders and aggregates matching original materials, maintaining historic integrity and assuring long-term retention of color and match to original materials.

ESTHETIC & PERFORMANCE REQUIREMENTS:

REPLIC-8 mixes meet all of the esthetic and performance criteria for effective replication mixes:

- *Match Color and Texture*
- *Match Strength and Permeability of Original Materials*
- *Match Fine and Coarse Aggregates, Remaining a Close Match as it Ages and Weathers*
- *May Be Adjusted to Meet Air Entrainment and Water Reduction Requirements*
- *May Be Designed Using Natural Cement, Natural Hydraulic Lime or Portland Cement Binders.*

PERFORMANCE:

REPLIC-8 mix designs are generally non-proprietary. They can be produced to conform

with any specification or can be developed through petrographic analysis of existing materials. Minimum strengths and other parameters like slump, water to cement ratio, and air content can be specified.



Photos: The Madison Avenue Bridge on Connecticut's National Landmark Merritt Parkway had repair sections form and poured using REPLIC-8. Mix designs were developed from petrographic analysis of core samples and custom color matched.



COMPATIBLE SUBSTRATES:

Concrete, cast stone, precast concrete, acoustalith tile, pavers, exposed aggregate wall systems and others.

TYPICAL ON-SITE TESTING FOR CAST IN PLACE CONCRETE:



Step 1: Measure the exact amount of clean mixing water for a 60 lb bag of *Replac-8*. (Amounts vary based on mix design and weather conditions)



Step 2: Mix for 4 minutes using a 250-400 rpm drill mixer.



Step 3: Measure slump according to ASTM C143/C143M.



Step 4: Cast cylinders for compressive strength testing according to ASTM C31/C31M.

APPLICATION:

The range of materials and applications covered under the *REPLIC-8* label are too diverse to allow a universal, comprehensive set of application instructions to be published herein.

The following are some general comments and guidelines:

Minimum Application Temperature: 50°F (10°C)

Maximum Application Temperature: 86°F (30°C)

1. **Surface Preparation:** When applying **REPLIC-8**, substrates should be clean, damp or surface-dry, free of grease, oil, dirt, organic coatings or other materials which may interfere with adhesion.

2. **Application:** Consult your Edison Coatings Technical Representative for guidance and recommendations on how to best use your particular **REPLIC-8** formulation to achieve your particular project goals.

TYPICAL COVERAGE RATES:

Supersack packaging generally corresponds with yields of 1 cubic yard.

Small bag or bucket packaging generally corresponds with 1/2 cubic foot yield.

3. **Curing:** Observe the curing guidelines developed for your formulation and application. Generally, formed and poured materials can be left to cure in their forms for 3-7 days. Exposed materials should be misted several times a day for at least the first 3 days. Do not apply when rain is anticipated within 12 hours of application, and protect, if necessary, during that 12-hour cure period. Protect from freezing for at least 72 hours.

4. **Compatibility:** Do not apply without protecting surfaces or materials which may be damaged by contact.

5. **Safety & Handling:** **REPLIC-8** products may contain cement, lime and other alkaline materials. Avoid skin and eye contact and use personal protective equipment as instructed in the product Safety Data Sheet (SDS). Carefully read and observe all safety and handling guidelines as detailed in the Safety Data Sheets supplied with this product.



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