Mortar & Plaster
For Historic Restoration
and Green Building

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EcologicTM Mortar

SCG Coarse (G)

deGruchy's EcologicTM Mortar, in any of the stock simply colors. are a prepared blend binder/aggregate/pigments to which you just add water, mix and go to work. Use it on historic buildings to repoint, stucco, parge and plaster. EcologicTM Mortar can also be used to lay/re-lay brick, terra cotta, block and stone on modern construction. EcologicTM Mortar is a "Green" Product and the result is an "Old World" Lime finish that is chemically and physically suitable as a replacement mortar for historic masonry. It is as simple as mixing the mortar with water using a high torque industrial electric drill and a rigid paddle attachment in a five-gallon pail or using a mason's paddle-style mortar mixer. The bag weight is 38.5 pounds. Recommended for masonry joints between 3/8" and up to 2" depending on depth. Can also be used as Plaster/Stucco/Render base coats and as a finish coat for a coarse texture.

Benefits

The advantage of the pre-blended material with sand and pigment already added is that the quality control of the mix design is already completed. The mixing can take place on each level of scaffold, if suitable conditions allow using the drill and paddle mixing method, with no excess sand piles or other bags of material stored on site. deGruchy's EcologicTM preblended mortar is all you need. Having all the materials in one bag reduces the temptation to add Portland cement, that is customary when a typical Type N mortar is made with local hydrated lime. The preblended material ensures that the engineering of the mortar's final properties is kept in a high-quality control environment with the right sand and the right pigments for consistent color and results. NO Portland Cement is present or needed in deGruchy's EcologicTM Mortars yet the stock material will still reach the 750 p.s.i. required for a Type N mortar while maintaining the high permeability required for repointing and repair

to historic structures originally built with lime mortars. Due to the lack of Portland cement, EcologicTM Mortar is immune to sulfates and salts. The alkali-silica reaction does not take place with St. Astier Natural Hydraulic Limes.

Makers of

Eco-friendly Characteristics:

- · High vapor exchange qualities which promote good indoor air quality
- · 80% less carbon emissions of the binder in comparison to Portland cement binders
- · Re-absorption of CO₂ in curing
- · Will not deteriorate timber
- · No harmful Chromium VI which is present in Portland Cements
- EcologicTM Mortar can be recycled

<u>Granulometry</u>

Granulometry using US Standard Test, Sieve #16 (1.18mm) to #200 (0.075mm) for masonry, pointing, dubbing out, first and main coats on renders and rough finishing coats. Meets ASTM C-144 standards for sharp, well-graded sand.

Mixing

EcologicTM Mortar must be mixed for five minutes with clean, potable water or sea water if needed. Start with one-half (0.5) gallon of water per bag and slowly add more water only until the mix contains the minimum amount of mixing water to become workable. Keep water ratios consistent between batches to ensure consistency in material performance and appearance. Judge workability only after five minutes of continuous mixing.

DO NOT ADD ANYTHING ELSE TO THE MIX SUCH AS PORTLAND CEMENT, LIME, FLY ASH, POZZOLANS, ACCELERATORS, RETARDERS. Casein could be added at the rate of 1/8 – 1/4 lb. per bag of mortar to increase fluidity when pumping and spraying coarse (G) mortars.

General Application

Mist the substrate and any previous lime mortar application with water immediately before a new application but only as a slight dampening to control absorption. No standing water should remain during a new application. If substrate is retaining inordinate amounts of moisture due to rising damp, poor flashing or moisture from a chimney cavity, faulty plumbing or other; this must be corrected before new work begins. ASTM has reports on normal absorption rates for most building materials not explicitly covered by individual manufacturers. Wait a minimum of 10 days between coats of stucco (render). Within 24 hours of an installation rub closed any cracks that form before the next coat is installed. EcologicTM Mortar can be reworked within 24 hours depending on weather conditions. Do not apply at temperatures below 40°F (4°C) or above 85°F (29°C).

Aiding the Cure

Protect the work by covering it with burlap or jute. Spring clamp fabric covers a few inches away from the work and wet the fabric covers a few times a day for the cure period of approximately three days. Fabric covers allows moisture to slowly escape and encourages a slow cure. Fabric covers should not come in contact with the wall to avoid staining. Tarps could be used on the outside of the scaffold to protect from driving rain and wind.

Environmental Requirements

Materials must be stored and handled to protect them from damage and moisture in accordance with manufacturer's instructions. It is recommended to take precautionary measures necessary to assure that excessive temperature changes do not occur. Do not apply EcologicTM Mortar unless minimum ambient temperature of 40°F (4°C) and a maximum of 85°F (29°C) continues to be maintained for a minimum of 24 hours prior to the application and until EcologicTM Mortar has cured for 72 hours at this temperature range. No heavy rain should be allowed to flood the application until after proper curing has occurred. During hot weather, protect the work from an uneven

and excessive evaporation of EcologicTM Mortar's moisture content during dry, hot weather. It is suggested to provide a humidifier in the room during the curing process.

Technical Data

Working time: 24 hours

Cure time:

72 hour initial cure – 28 day full cure

Average coverage:

- Repoint about 40 sq. ft. of standard brick joints @3/8" wide and 3/4" deep, per bag
- Repoint about 15 sq. ft. of rubble stone wall
 @ 1" wide and 1 ¼" deep, per bag
- · Lay about 40 standard bricks per bag
- · Stucco/Plaster 11 sq. ft. @ 3/8"

Shelf life:

24 months if kept sealed and away from moisture.

Safety:

Wear adequate protective clothing to avoid prolonged contact with the mortar. To avoid dust contact with eyes and possible inhalation wear glasses and the appropriate dusk mask especially in areas not properly ventilated.

Disposal:

Sweep and place bulk material in containers and properly remove for disposal. The final, cured product is not hazardous. Dispose of discarded material in a landfill in accordance with all local, state and federal regulations.

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