

SPECIFICATIONS

1.0 GENERAL

1.1 Work performed under the requirements of this section shall be subject to all conditions set forth under Part 1. "General Conditions" as applicable to this portion of the work.

2.0 SCOPE OF WORK

2.1 Finish all labor, materials and equipment necessary to complete the installation of Pavers in frost, weather and shock resistant setting beds as specified herein and where indicated in drawings.

1) Latex Mortar's are designed for installations over concrete, block, brick and masonry type surfaces including gypsum wallboard and plasters. Epoxy Adhesive and Grout may be used over all of these same surfaces and is especially recommended for chemically resistant installations or over plywood, steel, asphalt tile, vinyl and linoleum. Mastic adhesives are acceptable.

L/360

2) Structural requirements for pavers require that all floor and wall surfaces to be covered must be rigid and structurally sound. Maximum allowable deflection is under live and dead loads.

3) This is a total system. Call out products by name, number and application to insure that specifications do not differ from the manufacturer's instructions.

4) The following shall be inserted in Concrete Section.

to

"No sealers or curing compounds shall be used on concrete slabs which are to be covered with pavers. Such slabs shall be covered and wet cured for a minimum of seven (7) days. Areas that are to receive finished flooring, installed by the thin bed method, shall have a wood float finish, be true to within 1/8" (3mm) and pitched drains where required. Areas requiring fill, patching or leveling shall be prepared by the General Contractor using Grout and Mortar Admix/Portland cement/sand in accordance with the manufacturer's instructions. Gypsum or asphalt based leveling form oil. Any such contamination shall be removed by the Contractor who applied the material.

Contractor

5) Pavers and their setting and grouting mortars do not constitute a waterproof barrier and should not be considered as are placement for a waterproof membrane.

3.0 MATERIALS

3.1 All pavers, where called for, shall be ...(insert type, style, finish and size).. as manufactured by Terra Green Ceramics, Inc.

1650 Progress Drive, Richmond, IN 47374

3.2 Materials for installing Pavers shall be ...(select on: Portland cement/sand mortar gauged with Latex Thin Set Mortar Additive or Epoxy Adhesive and Grout).

Materials for grouting tile work shall be...(select one: factory prepared gauged with Grout & Mortar Admix Mastic or Epoxy Adhesive and Grout).

Portland Cement. ASTM C -150 -Type 1

Sand: Masons Sand ASTM C-144 (0.0-2.5 mm), Concrete Sand ASTM C-33 (0.1- 5.0mm) and bagged 30-60 Mesh (0.0-5mm) Silica.

Latex Additives: Provide Thin set Mortar Additive and Grout & Mortar Admix. Installation shall be in strict accordance with manufacturer's instructions. Epoxy Adhesive and Grout: Provide Epoxy Adhesive and Grout. Installation shall be in strict accordance with manufacturer's instructions.

The use of polyvinyl acetate, neutral rubber or resin latex emulsions shall not be permitted.

3.3 The bedding and grouting mortars shall be weather frost shock and chemical resistant shall meet the following physical requirements

Compressive strength: Thick bed mortar.....3000 psi Min. (211 kg/cm2)

Compressive strength: Thin bed, bonding, grouting mortars.....3000 psi Min. (352 kg/cm2)

Tensile strength: Thin bed, bonding grouting mortars.....500 psi Min. (35 kg/cm2)

Bond strength: Thin bed, bonding, grouting mortars.....500 psi Min. (35 kg/cm2)

Water absorption.....4% max

Ozone resistance: 200 hours @ 200 ppm.....No loss of strength

Smoke contribution factor.....0

Flame contribution factor.....0

3.5 The finished mortar and grout shall be resistant to urine, dilute acid, dilute alkali, sugar, brine and food waste products.

3.6 All Mortar Additives, Mastics, and Epoxy Adhesives and Grouts shall be compatible and from one manufacturer.

3.7 All materials shall be delivered to the job site in the original containers with the manufacturer's identification on each package. The addition of water or other materials to dilute the Mortar Additives on the job site will be permitted.

4.0 APPROVALS AND SAMPLES:

4.1 Prior to commencing work, submit for approval representative samples of each type and color of pavers.

4.2 The supplier of Mortar Additives shall have been regularly engaged in the manufacture of these materials for a minimum of ten (10) years, and shall submit to the architect a list of three (3) similar installations, each having a minimum of five (5) years services.

4.3 Alternate materials must be submitted and approved 10 days prior to bid date. Submissions must be accompanied by documentation from an independent testing laboratory confirming compliance with all requirements of this Specification.

5.0 HANDLING AND STORAGE OR MATERIALS:

5.1 Handle and store pavers in a manner to avoid chipping, breaking or the intrusion of foreign matter.

5.2 Handle, store, mix and apply proprietary setting and grouting materials in strict compliance with the manufacturer's instructions.

5.3 The contractor shall take precautions to protect the Mortar Additives from freezing or from excessive heat. (OVER)

6.0 MORTAR AND GROUT MIXES:

6.1 LATEX THIN BED MORTAR MIX & SLURRY BOND COAT

1 Bag (42-50 kg) Portland Cement plus 100 lbs. (45 kg) Sand (30-60 mesh)(0.0-0.5mm)

5 Gal (19L) Latex Thin Set Mortar Additive. (Adjust quantity to liquid to obtain proper consistency)

6.2 LATEX GROUT

50 lb (22.7kg) Floor Grout & Joint Filler (Color to be selected by Architect or owner)

1 Gal. (4 L) Grout and Mortar Admix (Adjust quantity of liquid to obtain proper consistency)

6.3 EPOXY ADHESIVE & GROUT

Epoxy Adhesive and Grout (Color to be selected by architect or owner)

6.4 LATEX PORTLAND CEMENT LEVELING BEDS AND SCRATCH COATS (up to 2"(50mm)+/-thick)

1 Bag (42-50kg) Portland Cement plus 3 Cubic Ft (150kg) Sand (ASTM C-144)(0.0-2.5mm)

5 Gal (19L) Grout & Mortar Admix (Adjust quantity to obtain proper consistency)

6.5 LATEX PORTLAND CEMENT THICK BED MORTAR (2"+)(50 MM+)

1 Bag (42-50kg) Portland Cement plus 3 Cubic Ft (150kg) Sand (ASTM C-33)(0.1-5.0mm)

5 Gal. (19L) Grout & Mortar Admix (Adjust quantity to obtain proper consistency)

7.0 PREPARATION

7.1 Prior to commencing the installation, the contractor shall examine the areas to be covered and advise the General Contractor And Architect of any existing conditions or surface contamination which will require correction before the work commences.

7.2 Before starting, surface to be covered shall be cleaned to remove soil, mortar, etc.

7.3 Dry or dust concrete or masonry surfaces shall be wet down or washed and excess water removed just prior to the application of paver.

8.0 MIXING

8.1 Machine Mixing: Mixer shall be a rotating blade type mortar mixer. Place liquid in mixer, start machine and add sand, then cement. Mix only long enough to wet

out the batch. Do not over-mix. Stop mixer and dump mortar from mixer promptly.

8.2 Hand mixing: Premix the dry ingredients (sand and cement). Place liquid in clean container or mixing box, add dry material and mix. Adjust amount of liquid or

dry material to obtain proper consistency.

9.0 INSATLLATION BY THIN BED METHOD

9.1 The mortar shall be applied with a notched trowel using a scraping motion to work the material into good contact with the surface to be covered. A trowel having

notches approximately 1/4" and 3/8" (6mm x 9mm) is recommended for pavers.

the 9.2 Only as much mortar shall be applied as can be covered within 20-30 minutes, or while surface is still tacky and wet. When installing paves, a small quantity of mortar shall be troweled or scraped onto the back of each piece. Pavers shall then be set in place and rapped or beaten with a small beating block to insure 100% full bedding and a true surface. Pavers shall be aligned to show uniform joints and then allowed to set until firm.

9.3 Excess mortar shall be cleaned from the surfaces of the pavers with a wet cloth or sponge while the mortar is fresh.

10.0 INSTALLATION BY THICK BED METHOD

Vertical Surfaces:

10.1 On wire lath, concrete and masonry, a weather-resistant scratch and plumb coat shall be troweled on, floated plumb and true and allowed to set. Pavers shall be installed any time after scratch coat is firm as described in Section 9.0

Horizontal Surfaces:

mortar 10.2 Bed thickness shall be a minimum of 2" (50mm). The prepared mortar shall be spread approximately one-half the desired bed thickness and then 2"x 2" (50mm x 50mm) 16 gauge, welded, galvanized reinforcing mesh shall be laid. The wire shall be lapped 3" (75mm) and additional shall then be placed on top of the wire to bring the bed to the desired thickness. The mortar shall be rodded and compacted with a steel trowel.

Note: Bed may be reduced to a nominal 1" (25mm) thickness and reinforcing wire omitted when bonding directly to concrete slabs or a load bearing membrane.

10.3 Before placing pavers on a green or wet screed bed, a slurry bond coat shall be applied to the mortar bed using a flat trowel.

Thickness of the bond coat shall be approximately 1/16" (1.5mm). A skim coat of the mortar shall be applied to the back of each paver just prior to placing on the bed.

10.4 Pavers shall be placed in the wet slurry bond coat before the surface dries. Uniform joints shall be maintained.

10.5 After each piece is laid, it shall be beaten in with a wooden block or rubber mallet to level the surface and inbed the paver.

Beating shall be done before the mortar takes initial set.

10.6 Surface shall be pitched to drains where specified.

10.7 On hardened screed or mortar bed, pavers shall be installed by thin bed method, see section 9.0

11.0 EXPANSION AND CONTROL JOINTS:

11.1 Existing joints in concrete sub floors must be carried through paver work and shall conform to architectural details.

joints 11.2 Expansion joints shall be installed where pavers abut restraining surfaces such as perimeter walls, curbs, columns, etc. and directly over cold joints and control in structural surfaces and shall conform to architectural details.

joint layout, 11.3 Interior installations shall have expansion joints spaced a maximum of 24' x 24' (7m x 7m). Exterior areas shall have expansion joints spaced a minimum of 16' x 16' (4.8m x 4.8m). Expansion joints shall raked or cut through the setting bed to the supporting slab or structure. (NOTE TO SPECIFIER. Optimum ratio of length to width, is 1:1 and shall not be greater than 2:1. Consult a quality sealant manufacturer for recommended sealant).

12.0 GROUTING AND POINTING JOINTS:

12.1 Joints shall be grouted or pointed with (insert Section 6.2 for Latex Grout Joints or 6.3 for Epoxy Grout Joints).

12.2 Joints shall be packed full and free of all voids and pits (Tool or rake as specified)

surface. 12.3 Excess mortar shall be cleaned from the surface with water as the work progresses. Cleaning shall be done while mortar is fresh and before it hardens on the

a 12.4 Hardening gout film or haze shall be removed using Tile, Grout Masonry Cleaner. Saturate the grout joints with water, then dampen the surface with cleaner. For cleaning unglazed Paver also sprinkle fine sane(40-80 mesh)(0.0-0.5mm) over the surface. Allow to soak 15-30 minutes and then use a power scrubbing machine with coarse texture nylon pad to remove the grout film.

CAUTION: DO NOT USE ACID TYPE CLEANERS
DO NOT USE EXCESSIE AMOUNTS OF WATER TO CLEAN GROUT
DO NOT USE SOFT GLAZED PAVERS

13.0 PROTECTION:

13.1 The contractor shall take precautions to protect the finished work from damage by other trades.

Cold Weather Note: The setting of Portland cement mortars is retarded by low temperatures and finished work should be protected for an extended period of time.