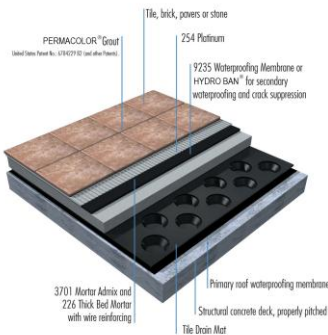




Plaza & Deck System

DS-290.0-0314

Globally Proven Construction Solutions



- Provides integral subsurface drainage for extra heavy traffic conditions
- Single source responsibility
- “Extra Heavy Service” rating per TCNA performance levels (RE: ASTM C627 Robinson Floor Test).
- For new projects and renovations
- Reduces potential for efflorescence

Suitable Substrates

Use over structurally sound and properly pitched:

- Decks
- Concrete
- Precast
- Exterior Glue Plywood decks that have been waterproofed with a primary roof waterproofing membrane.
- Packaging/Components

1. PRODUCT NAME

Plaza and Deck System

2. MANUFACTURER

LATICRETE International, Inc.
1 LATICRETE Park North
Bethany, CT 06524-3423 USA

Telephone: +1.203.393.0010, ext. 235
Toll Free: 1.800.243.4788, ext. 235
Fax: +1.203.393.1684
Internet: www.laticrete.com

3. PRODUCT DESCRIPTION

Plaza and Deck provides a thin, lightweight, weather and frost resistant installation for ceramic tile, pavers, brick or stone. This system is designed for use over roof waterproofing membranes. An integral subsurface drainage component provides for elimination of infiltrated water. Plaza and Deck System eliminates the dead load problems (50 lbs/ft² /245 kg/m²) and high haulage/placement costs associated with conventional gravel drain beds.

Uses

Recommended for new construction and renovations, such as:

- Plazas
- Balconies
- Walkways
- Exposed Decks
- Terraces
- Courtyards

Advantages

- Thin and lightweight, reduces dead load by 50%
- Frost and Weather Resistant
- Protects the tile installation from water damage and frost heaving

TILE DRAIN MAT

200 ft² (18.5 m²), lightweight, efficient drainage mat; 300 % better flow rate than crushed gravel drain bed. Mat Depth: 1/4" (6 mm) supplied in rolls. Mat is engineered to permit maximum load transfer to structural deck while allowing lateral flow of infiltrated water to flow easily to drains—Patent # 5,383,314

LATEX MORTAR BED

A high strength, frost and shock resistant mortar that provides an extra heavy duty, loadbearing base for the bonded tile finish. Prepared by mixing with 3701 Fortified Mortar Bed; or, 226 Thick Bed Mortar with 3701 Mortar Admix. Reinforced with 2" x 2" (50 x 50 mm) 16 gauge galvanized wire.

HYDRO BAN®

A thin, liquid-applied, waterproofing membrane applied over Latex Mortar Bed. Non-flammable and non-hazardous. Provides secondary waterproofing and crack suppression protection.

LATEX THIN-SET MORTAR AND LATEX MODIFIED GROUT

Ceramic tile, pavers, brick or natural stone are installed directly over the Mortar Bed and Membrane with Latex Thin-Set Mortar and Latex Modified Grout for permanent, weather resistant and maintenance-free installations. Use 254 Platinum or 211 Powder with 4237 Latex Additive. Grout is prepared by mixing PERMACOLOR® Grout[^] with water.

Coverage

Application	Product	Mix Ratio	Coverage
Leveling Bed Pitch Layer (Plastic Consistency)	3701 Fortified Mortar Bed	60 lb (27.3 kg) bag to 0.7–0.8 gal (2.6–3.0 l) of water	24 ft ² at 1/4" (2.2 m ² at 6 mm) thickness
Mortar Bed (Dry Pack Consistency)	3701 Fortified Mortar Bed	60 lb. (27.3 kg) bag to 0.7 – 0.8 gal (2.6 – 3.0 l) of water	3 ft ² at 2" thick (0.3 m ² at 50 mm) thickness
Thin Bed (Trowelable)	Powder gauged with 4237 Latex Additive	35 lbs. to 1 gal. (16 kg to 3.8 l)	40 ft ² (3.6 m ²)
	254 Platinum	50 lb (22.7 kg) to 5 quarts (5.2 l) of water	60 ft ² (5.4 m ²)
Grout (Plastic)	PERMACOLOR® Grout	25 lb. (11.3 kg) bag to 1/2 gal (1.9 l) of water	Refer to Grout Coverage Chart

Limitations

- Adhesives/mastics, mortars and grouts for ceramic tile, pavers, brick and stone are not replacements for waterproof membranes. When a waterproof membrane is required, use a LATICRETE® Waterproofing Membrane (see Section 10 FILING SYSTEM)
- A primary roof membrane must be installed first; the System is then loose-laid over the membrane
- Surfaces must be structurally sound, stable and rigid enough to support ceramic/stone tile, thin brick and similar finishes. Substrate deflection under all live, dead and impact loads, including concentrated loads, must not exceed L/360 for thin bed ceramic tile/brick installations or L/480 for thin bed stone installations where L=span length (except for cases where local building codes take precedence [e.g. International Building Code Exterior Adhered Veneers – maximum allowable deflection under total anticipated load not to exceed L/600]). See ANSI A108.1.2.3/TCNA page 10–Maximum Allowable Deflection for Substrates Installed by Other Trades for more information.
- Consult local building codes and regulations for structural requirements.

Cautions

- During cold weather, protect finished work until fully cured.
- Contains Portland cement and silica sand. May irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water.
- Do not take internally. Silica sand may cause cancer or serious lung problems. Avoid breathing dust. Wear a respirator in dusty areas.
- Keep out of reach of children.

4. TECHNICAL DATA

Physical Properties

Weight of System @ 2" (50 mm) Thickness (excluding veneer)	27 lbs 1 per ft ² (132 kg/m ²)
Compressive Strength of System with 1/2" (12 mm) Paver Tile	432,000 lbs/ft ² (20.7 MPa)
Service Rating per ASTM C627	Extra Heavy

Specifications subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions.

5. INSTALLATION

Preparation

Wood framed & plywood systems must use exterior glue plywood. Slope of concrete or wood structures to drain, to an edge, or scuppers must be provided, pitch 1/4" per foot (19 mm per 1 m).

Application

PITCH LAYER

To provide pitch over a concrete deck, prepare a Latex Leveling Bed mix. Apply mortar over dampened substrate. Build from featheredge up to 3/4" (19 mm). Primary roof waterproofing membrane (provided by others) must be properly installed according to manufacturer's instructions over the hardened pitch layer. Flood testing of primary waterproofing membrane is required prior to the installation of Plaza and Deck System.

Note: Contact roofing membrane manufacturer for installation and protection requirements.

TILE DRAIN MAT

Tile Drain Mat is loose laid over primary roof waterproofing membrane. Mat is placed so that open cups face up. Roll out mat and cut to desired length with utility knife (protect waterproofing membrane from damage). Interlock by placing one row of disks over top of adjacent sheet and lay in. Sheets can be cut easily for precise fit at restraining wall surfaces. If Drain Tile Mat will be exposed for a period of time. Cover with a protection board. Also, place temporary weight on Tile Drain Mat to prevent uplifting by wind.

Note: Tile Drain Mat interlocks in only one direction.

LATEX MORTAR BED—Screed the mortar in a normal manner, remembering to maintain the proper pitch in the deck. Place galvanized wire reinforcing in the middle of the bed. Compact or tamp the mortar bed to ensure proper strength and durability. A minimum bed thickness of 2" (50 mm) is required. Note: Additional pitch can be built into mortar bed if primary membrane has not been sufficiently pitched (minimum required 1/4" per foot/ 18 mm per meter.)

HYDRO BAN®

(For detailed installation guidelines please refer to data sheet 663.0, 663.5) HYDRO BAN® can be applied after Mortar Bed has hardened (72 hours @ 70°F (21°C)). Do not install membrane over areas with standing water. If membrane is to be left temporarily exposed, cover with protection board. Protect from rain with polyethylene sheet for 7 days @ 70°F (21°C) after installation. Flash membrane over edge of Mortar Bed at expansion joints (see detail drawing ES-EJ01).

Note: Do not bridge expansion joints with membrane. Flash membrane down into joint and seal joint with foam backer rod and sealant.

Latex Thin-set Mortar

Install ceramic tile, pavers and stone directly over HYDRO BAN® using 254 Platinum or 4237 Latex mixed with 211 Powder.

Latex Modified Grout

Select grout color from Grout Color Card Data Sheet 254.3 US. Prepare grout using PERMACOLOR® Grout[^] mixed with water.

Expansion and Control Joints—Ensure that all wall/floor and field expansion joints are properly designed and spaced, and are free to move using a traffic-bearing, exterior grade sealant or pre-formed jointing material. Use LATASIL™.

6. AVAILABILITY AND COST

Availability

LATICRETE® and LATAPOXY® materials are available worldwide.

For Distributor Information:

Toll Free: 1.800.243.4788
 Telephone: +1.203.393.0010
 Internet: www.laticrete.com

Cost

Contact a LATICRETE Distributor in your area.

7. WARRANTY

See 10. FILING SYSTEM:

DS 230.13: LATICRETE Product Warranty (United States and Canada)

A component of:

DS 025.0APD: LATICRETE 25 Year Tile & Stone System Warranty (United States and Canada)

8. MAINTENANCE

LATICRETE and LATAPOXY grouts require routine cleaning with a neutral pH soap and water. All other LATICRETE and LATAPOXY materials require no maintenance but installation performance and durability may depend on properly maintaining products supplied by other manufacturers.

9. TECHNICAL SERVICES

Technical Assistance

Information is available by calling the LATICRETE Technical Service Hotline:

Toll Free: 1.800.243.4788, ext. 235
 Telephone: +1.203.393.0010, ext. 235
 Fax: +1.203.393.1948

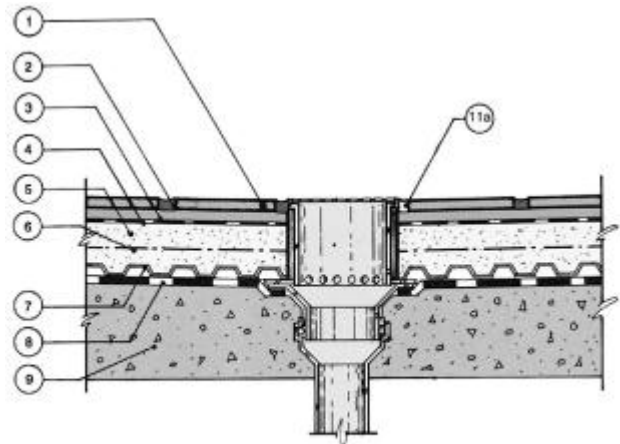
Technical and Safety Literature

To acquire technical and safety literature, please visit our website at www.laticrete.com.

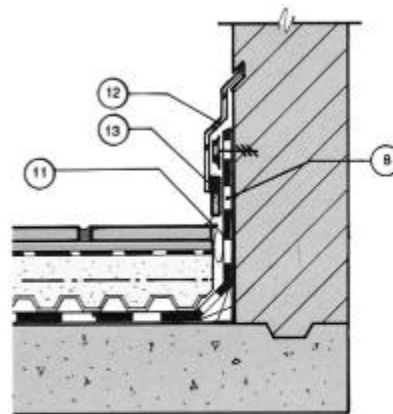
Key Notes

1. Tile, Brick, Pavers and Stone
2. PERMACOLOR Grout[^]
3. 254 Platinum
4. HYDRO BAN for secondary waterproofing and crack suppression

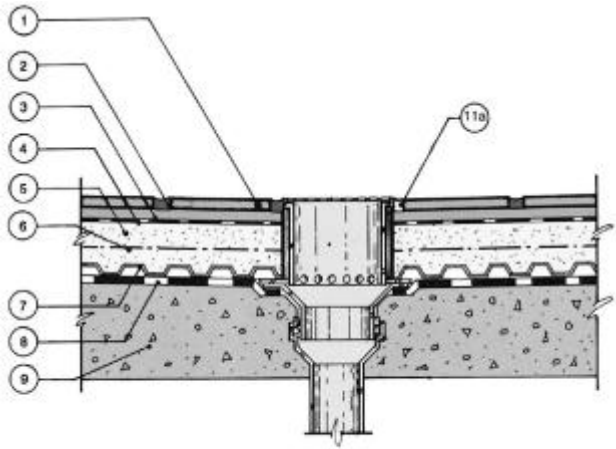
5. 3701 Fortified Mortar Bed; or, 3701 Mortar Admix mixed with 226 Thick Bed Mortar (Minimum 2" / 50 mm)
6. Wire Reinforcing (16 Gauge, 2" x 2" (50 mm x 50 mm) welded galvanized wire mesh)
7. Tile Drain Mat
8. Primary Waterproofing Membrane (Roofing Type)
9. Concrete slab, properly pitched: 1/4" per foot/ 18 mm per meter
10. Expansion joint
11. Foam backer rod topped with suitable sealant
- 11a. LATASIL
12. Flashing
13. Tile base
14. Balcony edging tile
15. Edge profile
16. Drip edge
17. Gutter
18. Gap between edging profile and balcony edging tile



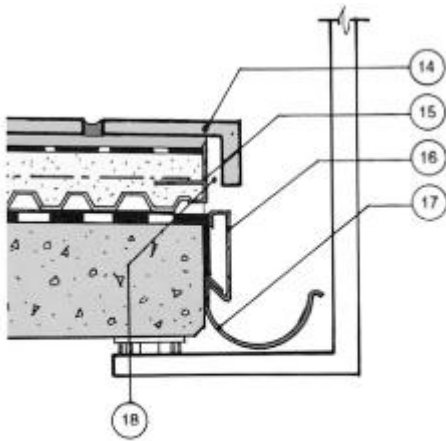
**DRAIN DETAIL
 DWG. 130.1**



**WALL/FLOOR CONNECTION
 DWG. 130.2**



**DRAIN DETAIL
DWG. 130.1**



**EDGE DETAIL
DWG. 130.3**

10. FILING SYSTEM

Additional product information is available on our website at

www.laticrete.com. The following is a list of related documents:

- DS 230.13: LATICRETE® Product Warranty (United States and Canada)
- DS 025.0APD: LATICRETE 25 Year Tile & Stone System Warranty (United States and Canada)
- DS 100.0: 3701 Fortified Mortar Bed
- DS 230.1: 4237 Latex Additive
- DS 231.0: 3701 Mortar Admix
- DS 236.0: 9235 Waterproofing Membrane
- DS 239.0: 211 Powder
- DS 239.1: 226 Thick Bed Mortar
- DS 250.0: PERMACOLOR® Grout[^]
- DS 254.3: Grout & Sealant Color Card
- DS 663.0: HYDRO BAN®
- DS 663.5: HYDRO BAN Installation Instructions
- DS 677.0: 254 Platinum
- DS 6200.1: LATASIL™

[^] United States Invention Patent No.: 6784229 (and other Patents)

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