

9400

DS-045.0-0312



1. PRODUCT NAME

DRYTEK® 9400

2. MANUFACTURER

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3. PRODUCT DESCRIPTION

DRYTEK 9400 is a premium quality self-leveling, fast drying, wear surface topping. DRYTEK 9400 may be polished, integrally tinted or topically stained, making it the designers choice for attractive finished floors. Superior abrasion resistance makes it perfect for multiple environments such as retail, warehouse and manufacturing facilities. Can be placed from 1/8 to 1/2" (3 to 12 mm) per lift.

Advantages

- Fast Drying
- Superior abuse and abrasion resistance
- Long heal times for extended workability
- Pumpable, free-flowing; eliminates sanding and troweling
- Can be applied directly over wet concrete (RH 95% or less per ASTM F2170)

Suitable Substrates (Interior Use Only)

- Concrete
- Cement backer board*
- Exterior glue plywood**
- Ceramic tile and stone**

- Cement mortar beds
- Cement terrazzo**
- Vinyl Tile[^]

* Consult cement backer board manufacturer for specific installation recommendations.

** See 5. Installation—Surface Preparation.

[^] See Section 5 Installation Over Vinyl Tile

Packaging

55 lb (25 kg) bag/40 bags per pallet

Color

White and Grey

Approximate Coverage

Yield/coverage is only an estimate and may vary depending on the amount of water, mixing equipment, temperature and field conditions.

Per 55 lb (25 kg) bag

Nominal Thickness	Approximate Coverage
1/8" (3 mm)	51 ft ² (4.8 m ²)
1/4" (6 mm)	26 ft ² (2.4 m ²)
1/2" (12 mm)	13 ft ² (1.2 m ²)

Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for one (1) year[‡] if stored off the ground in a dry area.

[‡] High humidity will reduce the shelf life of bagged product.

Limitations

- For interior use only.
- Do not install when surface temperature is below 40°F (4°C) or above 90°F (32°C), or when ambient air temperature is expected to fall below 50°F (10°C) during placement or before material takes final set.
- Do not install over painted or gypsum-based surfaces.
- Do not exceed recommended mixing ratio as indicated in mixing instructions. Over watering may weaken product properties.
- Never mix with cement or admixtures.
- Do not apply DRYTEK 9400 over waterproofing or crack isolation membranes.

- Adhesives/mastics, mortars and grouts for ceramic tile, pavers, brick and stone are not replacements for waterproofing membranes. When a waterproofing membrane is required, use a LATICRETE® Waterproofing Membrane (see Section 10 FILING SYSTEMS).
- Do not bond directly to luan, OSB, particle board or Masonite® surfaces.
- Not for use in submerged applications
- DRYTEK DM1 Reinforcement Mat or 3.2# galvanized diamond metal lath must be used when installing over wood substrates.
- Not for submerged applications.
- DRYTEK 9400 should not be installed over any moving joints or structural cracks (cracks greater than 1/16" [1.5mm] in width or any crack which experiences vertical displacement). All existing expansion joints, cold joints and control joints must be brought up through the wear surface cement. Failure to honor movement joints will result in cracking or loss of bond.
- Note: 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 where local building codes specify more stringent deflection requirements)

Cautions

Before using any DRYTEK product

- Read and understand the Product Information Data Sheet and Material Safety Data Sheet.
- Perform a mock-up to ensure product will perform as required and achieve the desired final appearance. Refer to TDS 185D DRYTEK® Wear Surface Variation for more information.
- Check www.drytek.com for any technical bulletins or updated information about the product and its application
- Contact your local DRYTEK Technical Sales Representative with any questions
- During cold weather, protect finished work from traffic 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

TENSILE BOND STRENGTH ^A	200–270 PSI (1.4–1.9 MPA)
FLEXURAL STRENGTH ^B	1400–1600 PSI (9.6–11 MPA)
COMPRESSIVE STRENGTH ^C	5500–5700 PSI (37.9–39.3 MPA)

Specifications are subject to change without notification. Results shown are typical but reflect test procedure used. Actual field performance will depend on the type of tile/stone used, installation methods and site conditions.

A. Tensile Bond Strength per ASTM C 1583 test at 28 days, DRYTEK/Primer system over concrete substrate.

B. Flexural Strength at 28 days per ASTM C 348 – center point loading.

C. Compressive Strength per ASTM C 109 (air dry) – test at 28 days, 2" (50 mm) cubes, air dry.

Working Properties

Working Time	10–15 minutes
Time To Traffic	1–2 hours
Install Coatings	18 hours

5. INSTALLATION

Surface Preparation

Installation Over Concrete Slabs

- For installation of DRYTEK 9400 as a decorative topping, all concrete slabs must be shot blasted to ICRI CSP 3 - 5.
- Clean substrate to eliminate dust, dirt, oil, grease, paint or any contaminants which may inhibit bonding. Do not use chemicals to clean substrate. Remove any felt-backed floor coverings. Remove any loose particles and vacuum.
- Test tensile pull bond strength of substrate . If minimum 217 psi (1.5 MPa) bond strength is not achieved or the substrate is contaminated, mechanically clean by shot blasting or scarifying until satisfactory bond strength is achieved.
- All surfaces should be between 40°F (4°C) and 90°F (32°C) during application of DRYTEK 9400.. Surfaces should be structurally sound, clean and free from all dirt, oil, grease, adhesives, paint, sealers or curing compounds.
- All surfaces must be primed with DRYTEK 104S Premium Epoxy Primer. Maintain ambient temperature between 60 and 90°F (15–32°C) and substrate temperature 5°F (3°C) above dew point during, and for a minimum of 16 hours after, application of DRYTEK 104S Premium Epoxy Primer. Provide adequate ventilation to ensure uniform drying for 24 hours after installation.
- Expansion joints shall be provided through the DRYTEK 9400 work from all construction or expansion joints in the substrate. Follow ANSI specification A108.01-3.7 "requirements for movement joints: preparations by other trades" or TCNA detail EJ-171 "Movement Joints—Vertical & Horizontal". Do not cover expansion joints with mortar.

Installation Over Wooden Sub-Floors

- Installer must verify that deflection under all live, dead and impact loads of interior plywood floors does not exceed

industry standards of L/360 for ceramic tile and brick or L/480 for stone installations where L=span length.

- Minimum construction for interior plywood floors:

SUBFLOOR: 5/8" (15 mm) thick exterior glue plywood, either plain with all sheet edges blocked or tongue and groove, over bridged joists spaced 16" (400 mm) o.c. maximum; fasten plywood 6" (150 mm) o.c. along sheet ends and 8" (200 mm) o.c. along intermediate supports with 8d ring-shank, coated or hot dip galvanized nails (or screws); allow 1/8" (3 mm) between sheets and 1/4" (6 mm) between sheets edges; all sheet ends must be supported by a framing member; glue sheets to joists with construction adhesive.

UNDERLAYMENT: 5/8" (15 mm) thick exterior glue plywood fastened 6" (150 mm) o.c. along sheet ends and 8" (200 mm) o.c. in the panel field (both directions) with 8d ring-shank, coated or hot dip galvanized nails (or screws); allow 1/8" (3 mm) to 1/4" (6 mm) between sheets and 1/4" (6 mm) between sheet edges and any abutting surfaces; offset underlayment joints from joints in subfloor and stagger joints between sheet ends; glue underlayment to subfloor with construction adhesive. Refer to Technical Data Sheet 152 "Bonding Ceramic Tile, Stone or Brick Over Wood Floors" for complete details.

- Prime cleaned and properly prepared surface with DRYTEK 104S Premium Epoxy primer as described in "Priming" section.
- Allow primer to dry accordingly. Install 3.2# galvanized diamond metal lath over entire wood floor. Ensure proper fastening to eliminate any loose sections. Do not install over wet primer. Make sure that galvanized diamond metal lath is completely encapsulated.
Note: Galvanized diamond metal lath can be omitted when installing DRYTEK 9400 over LATICRETE® Floor HEAT.
- Prime surface according to "Priming" section and install DRYTEK 9400 according to "Application" section.

Installation Over Cutback Adhesive (over concrete only)

- Refer to requirements under Surface Preparation - Installation Over Concrete Slabs.

Installation Over Vinyl Tile (over concrete only)

- All vinyl tile must be well adhered to the substrate and free from any bond breaking or bond inhibiting surface contaminates. Ensure and document suitable tensile pull strength tests from a representative sample floor area that the adhesion of the vinyl tile to the substrate is a minimum 217 psi (1.5 MPa). If the floor does not pass the minimum pull strength requirements you must remove the tile and thoroughly shot blast the floor to a CSP of 3–5. It is the responsibility of the installation contractor to ensure the substrate is properly prepared prior to the installation of any DRYTEK material. Cementitious decorative coatings and epoxy resin floor coverings including epoxy terrazzo are excluded from this application.

Installation Over Existing Ceramic Tile, Stone or Cement Terrazzo

- All tile and stone must be well adhered to the substrate and free from any bond breaking or bond inhibiting surface contaminates. If DRYTEK® 9400 is intended for use as a wearing surface (not as a self-leveling underlayment) then existing tile or stone must achieve a minimum of 217 psi (1.5 MPa) tensile pull strength. If DRYTEK 9400 is intended for use as a self-leveling underlayment (not as a wearing surface) then existing tile or stone must achieve a minimum of 72 psi (0.5 MPa) tensile pull strength. If the floor does not pass the minimum pull strength test requirements you must remove the tile or stone and thoroughly shot blast the floor to a CSP of 3–5.
- Mechanically abrade existing ceramic tile and stone with a carborundum disk. Wash and rinse thoroughly with clean water. Allow to dry. Skim coat existing ceramic tile, cement terrazzo or stone with DRYTEK Premium Skimcoat Patch Underlayment (min.1/8" [3 mm] thick continuous coating). Allow to dry.
- Prime surface according to "Priming" section and install DRYTEK 9400 according to "Application" section.

Priming

Use DRYTEK 104S Premium Epoxy Primer with every application. Mix thoroughly before using. Mix and apply primer according to DRYTEK 104S Premium Epoxy Primer data sheet prior to the application of DRYTEK 9400 . Note: Keep primed surface clean. Do not allow any foot traffic onto surface.

Mixing

DRYTEK 9400 should be mixed with 5.5 to 6 quarts (5.2–5.7 ℓ) of water per 55 lb (25 kg) bag. Do not over water. For manual application, add product to water and mix for 2–3 min. with a heavy duty drill (650 rpm) to obtain a lump free mix. DRYTEK 9400 can also be used in most pump equipment. Please consult with a DRYTEK representative to verify equipment compatibility. A slump test should always be performed to ensure that mix is homogenized and free from separation. The ideal slump range for DRYTEK 9400 is 10–11" (250–280 mm) for wear surface using a DRYTEK Flow Test Kit.

Application

Pour blended material onto substrate at a thickness of 1/8" to 1/2" (3–12 mm) for all surfaces. Immediately smooth the poured slurry with a smoother. After initial set of material, remove all overlap marks, seams, and inconsistencies by scraping with steel trowel.

Perimeter Isolation Strip

It is essential that all walls and building elements are isolated from the self leveling pours to ensure proper expansion allowance against all restraining surfaces.

Note: It is recommended to install a perimeter isolation strip before the installation of DRYTEK 9400. Attach the perimeter isolation strip to the perimeter wall of the entire subfloor, as well as around the perimeter of any protrusions, in order to isolate the floor and wall/restraining surfaces. Temporarily fasten perimeter isolation strip in place with staples masking, duct, or carpet tape. The perimeter isolation strip can then be removed after the tiles have set firm. The joints can then be filled with LATICRETE® Latasil™.

Pour or pump the DRYTEK over the primed substrate and spread with a spike roller or gauging rake. Use a smoothing paddle to combine

pours and to obtain a flat smooth surface. Floor will be ready for foot traffic in 1–2 hours.

Time to Traffic

Allow 1–2 hours for foot traffic, 24 hours for light traffic and can bear full load (i.e. fork truck etc) after 7 days. at 70°F (21°C).

Flooring Finishes

Surface must be sealed with a suitable sealer. Refer to TDS 185D for more information.

6. AVAILABILITY AND COST

Availability

For Distributor information, call:

Telephone: +1.203.393.0010

For on-line Distributor information, visit DRYTEK at www.drytek.com.

Cost

Contact LATICRETE or DRYTEK Technical Sales Representative in your area.

7. WARRANTY

See 10. FILING SYSTEM

DS 230.16: DRYTEK 3 Year Product Warranty

8. MAINTENANCE

Some cleaning products/processes may alter the color of the installed DRYTEK floor. Test cleaning product and process in a small area prior to applying to the entire floor. Refer to TDS 184D "Maintenance of DRYTEK Cementitious Decorative Toppings", available at www.laticrete.com for more information.

9. TECHNICAL SERVICES

Technical assistance

Information is available by calling the DRYTEK Technical Service Hotline (hours 8:00 AM to 5:30 PM EST):

Telephone: +1.877.DRYTEK1, ext. 247 or;
+1.877.379.8351, ext. 247

Fax: +1.203.393.1948

Technical and safety literature

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

10. FILING SYSTEM

Additional product information is available on our website at www.drytek.com. The following is a list of related documents:

DS 230.16: DRYTEK 3 Year Product Warranty

DS 048.0: DRYTEK 104^S Premium Epoxy Primer

DS 049.0: DRYTEK 608 Premium Urethane Sealer

DS 046.0: DRYTEK Premium Skimcoat Patch Underlayment

DS 6200.1: LATICRETE® Latasil

TDS 184D: Maintenance of DRYTEK Cementitious Decorative Toppings

TDS 185D: DRYTEK Wear Surface Variation.

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