ELASTO-DECK BT H_20

WATER CATYLZYED ELASTOMERIC MEMBRANE WATERPROOFING SYSTEM COAL TAR FREE

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION:

ELASTO-DECK BT H_2O is a black, liquid applied, water catalyzed, polyurethane coating. It is designed to form a seamless, flexible waterproofing membrane impervious to moisture in one day for horizontal applications. It can be used between elevated concrete slabs, green roof (roof gardens), paver and pedestal systems. Once cured, **ELASTO-DECK B.T. H_20** allows expansion and contraction over a broad temperature range and maintains water-proofing properties under continuous exposure to water. **ELASTO-DECK B.T. H_20** remains flexible from –75˚F to 175˚F (-59˚C to 79˚C)

ADVANTAGES:

- **ELASTO-DECK B.T. H_20** does away with the unpredictable cure times and potentially undesirable side reaction with atmospheric oxygen and provides a bubble free dense, non-gassing elastomer with a positive, controlled cure rate, allowing extremely thick layers to be applied without the gassing and foaming expected of moisture cured urethanes under similar conditions.
- The addition of a specific quantity of water on the job site blended with the **ELASTO-DECK B.T. H_20** is what provides this positive cure, in combination with the unique chemistry that eliminates the carbon dioxide from the curing membrane, creating a smooth, dense, waterproof elastomer. Very rapid cure rates are achieved as well. Cured films are tougher, more tack free, and have no cellular structure.

PREPARATION:

Mixing Instructions:

- Add a minimum of 1 quart of cold tap water to a maximum of 2 quarts per 5-gallon container of **ELASTO-DECK B.T. H_20** on the job site immediately prior to application. Use 1 quart when ambient temperatures are lower than 60ºF. From 60ºF to 80ºF, 1 quart to 2 quarts at the contractor's option. **Note:** Do not apply if temperatures are below 55 ºF or above 90ºF.
- Work life will decrease with increased amount of water. Add correct amount of water and mix into a 5-gallon container of **ELASTO-DECK B.T. H_20** using a Jiffy mixer on a drill 300-600 R.P.M. Mix for 3-5 minutes and pour entire contents in an area matching the prescribed coverage rate. Resulting work life varies with temperature and amount of water used. At 77ºF, using 1 quart of water, work life is about 30 minutes.
- Once **ELASTO-DECK B.T. H_20 is mixed with water, it has to be used within 30 minutes.**
- All substrate conditions and surfaces to be coated shall be subject to inspection and acceptance by Manufacturer and Applicator. Commencing of waterproofing work shall constitute acceptance.

SURFACE CONDITIONS

- All surfaces must be clean and free of any oil, dirt, grease, and other contaminants which will interfere with adhesion of the coatings. Surfaces shall be left broom clean.
- **When priming is advisable, ELASTO-POXY PRIMER VOC** or **DECKTHANE PRIMER** may be used at the coverage rate recommended in their data sheets.
- **DECKTHANE PRIMER** should be used between coats should the time to apply the second coat **exceeds 24 HOURS.**
- All cracks over 1/16" (1.6mm) in width must be filled and covered with **PERMATHANE® SM7120 PU** manufactured by **HOLCIM SOLUTIONS AND PRODUCTS US, LLC**. This product may be applied by trowel or caulking gun. Allow **PERMATHANE® SM7120 PU** to cure prior to application with **ELASTO-DECK B.T. H_20**.
- **Flashing:** Prime metal flashings with **ELASTO-POXY PRIMER VOC**, Allow for a minimum 2–3-hour cure before coating.
- **ELASTO-DECK B.T. H_20** may be used in a single 60 or 90 mil (1.5mm) application over sound surfaces without danger of gassing. Application must be made uniformly to avoid thin spots. Due to the uneven profile of some concrete installations, it may be advisable to make two applications, which may often be done the same day, or as soon as the first coat is walk-able. Second coat of **ELASTO-DECK B.T. H_20 must be applied within one day**.
- Protection board must be used prior to backfilling or pouring the concrete topping slab.
- **Metal/Metal Flashing**: Prime with **ELASTO-POXY PRIMER VOC.**

Concrete

- Concrete surfaces shall be trowel finished followed by a light brooming, left free of loose particles, ridges, projections, voids, and droppings that would interfere with the application of the coatings.
- Concrete surfaces shall be water cured in lieu of curing compounds for a minimum of 28 days. If curing compounds are used, site adhesion test may be required.
- If concrete is poured in metal pans or decks, they shall be vented to permit proper cure of concrete.
- If vented pans are not available, then **ELASTO-POXY PRIMER VOC** must be used. This two-component epoxy primer is applied at 200-250 square feet per gallon. The primer must have enough time to cure tack-free before proceeding with the complete **ELASTO-DECK B.T. H_20** System. At no time should any materials be applied over concrete surfaces having greater than 25% moisture content.
- All surfaces to receive the **ELASTO-DECK B.T. H_20** system shall completely cleaned by grinding or blastrac.

- A minimum dry film thickness of 60 mils (1.5mm) is recommended over concrete surfaces. Extremely rough and porous substrates should be filled prior to coating or receive 90 dry mils. Most applications will require a primer.
- Prolonged exposure to UV is not recommended.

Plywood

- Use exterior grade plywood.
- Plywood shall be at least 5/8" thick. (3/4" minimum preferred). Plywood decking needs to be coated as soon as possible to avoid plywood delamination. Plywood substrates need to be primed with **DECKTHANE PRIMER** or **ELASTO-POXY PRIMER VOC** prior to applying the **ELASTO-DECK B.T. H_20.**
- All seams between plywood sheets and those between metal flashing and the plywood deck must be caulked flush and fabric reinforced with Tie-Tex 272 polyester fabric. Spot prime the areas and after a minimum 2–3-hour cure not to exceed hours and embed (4" minimum) fabric into a stripe coat of Elasto-Deck BT H20 or **PERMATHANE® SM7120 PU** manufactured by **HOLCIM SOLUTIONS AND PRODUCTS US, LLC.** The application of **ELASTO-DECK B.T. H_20** can be made after a minimum overnight cure of the fabric reinforcement procedure.

Metal

- All properly prepared metal surfaces shall be clean and free of any oil, rust or other contaminants that would affect bond of coatings. All metal flashing must be primed with **ELASTO-POXY PRIMER VOC.**

APPLICATION:

- Apply **ELASTO-DECK B.T. H_20** using a notched squeegee followed by back-roll using a roller or a porcupine roller.
- Coverage to obtain 60 dry mils is 23 sq.ft./gallon. 90 dry mils require an application of 15.5 sq./gallon, or two coats at 31 sq./ft. gallon per coat.
- All detailing must be cured a minimum of 12 hours prior to the application of the membrane. Detailing should be wiped clean with Acetone prior to the application of the membrane. In some states, use of non-VOC compliant solvents shall be limited.

90 mils with fabric

- ***BASE COAT*** - Within 10 minutes of mixing, uniformly apply 70 wet mils (23 sq.ft./gallon) of **ELASTO-DECK B.T. H_20** over the primed substrate.
- Immediately install **Tie-Tex** fabric and use a spiked roller with medium pressure for an even lay of the mat, and elimination of air pockets. Allow it to absorb the **ELASTO-DECK B.T. H_20** for 10-15 minutes at 77°F. Absorption will be faster at higher temperatures, and lower at lower temperatures.
- **Note**: Overlap the **Tie-Tex** fabric 4-6 inches and apply an additional 25-30 wet mills over the overlap area as well as the adjacent area.
- ***SATURATE COAT*** – After about 1 hour apply another 35 wet mils (45 sq.ft./gallon) of freshly mixed **ELASTO-DECK B.T. H_20** over the **Tie-Tex** fabric (apply within 10 minutes of mixing). Make sure that no dry fabric is showing.
- Coverage must be made uniformly in order to achieve complete saturation of the **Tie-Tex** fabric.

120 mils with fabric

- ***BASE COAT*** – Within 10 minutes of mixing, uniformly apply 70 wet mils (23 sq.ft./gallon) of **ELASTO-DECK B.T. H_20** over the primed substrate.
- Immediately install the **Tie-Tex** fabric and use spiked rollers with medium pressure for an even lay of the mat, and elimination of air pockets. Allow it to absorb the **ELASTO-DECK B.T. H_20** for 10-15 minutes at 77°F. Absorption will be faster at higher temperatures and slower at lower temperatures.
- **Note**: Overlap the **Tie-Tex** fabric 4-6 inches and apply an additional 25-30 wet mills over the overlap area as well as the adjacent area.
- ***SATURATE COAT*** – After about 1 hour apply another 70 wet mils (23 sq.ft./gallon) of freshly mixed **ELASTO-DECK B.T. H_20** over the **Tie-T**ex fabric (apply within 10 minutes of mixing). Make sure that no dry fabric is showing.

TECHNICAL DATA

Property	Typical Results
Color	Black
Consistency	Self-Leveling
Weight Per Gallon	9.17 lbs./ gal (@75°F)
Viscosity (Brookfield)	2500-5000 cps (@75°F)
VOC	81 g/L, EPA method 24
Re-Coat Time	1- 3 hours
Maximum Re-Coat Time	12 – 16 hours If the re-coat window exceeds 12-16 hours DECKTHANE primer will be required
Solids Content	90% by weight/ 88% by volume
Flash Point	120˚F (49˚C)
Pot Life	30 minutes
Shore Hardness	25 ± 5A
Tensile Strength	300 psi
Tensile Modulus (100%)	66 psi
Tensile Modulus (300%)	161 psi
Elongation (ASTM D412)	600%
Bond Strength (ASTM D4541 - primed concrete)	300 psi
Adhesion to Concrete (ASTM D903)	8 lb./in (1.5 kg/cm) No peel/ film break
Resistance to Decay (ASTM D154)	No surface defects
Tear Strength (ASTM D624 - Die C)	55 lb./in
Moisture Vapor Transmission (ASTM E96)	0.72 grain/hr/sq.ft.
Water Absorption (ASTM D570) (1 day @ 158˚F + 3 days @ RT)	1.76%
Crack Bridging - 1/8" (ASTM C836)	Pass
Low Temperature Flexibility (-10˚C) (ASTM C836)	Pass
Weight Loss % (ASTM C836)	Pass

Temperature Service Range	-50˚F – 180˚F (-45˚C – 82.2˚C)
** The shelf life for an unopened container stored at temperatures between 60°F (15.6°C) and 95°F (35°C) is 9 months from date of manufacture. Store out of direct sunlight in a cool, well-ventilated area. Avoid storing container directly on the floor or against an outside wall	

TEMPERATURE CONSTRAINTS:

- Minimum application temperature is 40°F (4°C) and rising and more than 5°F above dew point.
- Contact Technical Service when substrates are over 90°F (32°C) or under 40°F (4°C).
- Avoid application when inclement weather is present or imminent.
- Do not apply to damp, wet, or contaminated surfaces

AVAILABILITY AND COST:

- **ELASTO-DECK B.T. H_20** is supplied through building material dealers. These products are designed and manufactured to be installed by professional installers familiar with surface preparation and application procedures. All others should consult a professional installer; those who choose to install these products without professional assistance do so at their own risk.
- All materials shall be delivered to the jobsite in unopened containers clearly marked and labeled. Containers that have been opened must be used up within one or two days since it is a moisture-reactive material. It sets up when exposed to air. All surfaces must be completely free of foreign matter. Most substrates will require primer. **(ELASTO-POXY PRIMER VOC) or DECK-THANE PRIMER)**
- **Size:** 5-gallon pails

CLEAN UP:

Equipment and tools should be cleaned immediately after use with acetone or other exempt solvent.

MAINTENANCE:

- If **ELASTO-DECK B.T. H_20** is damaged, it can be repaired by cleaning the surface, priming with **DECKTHANE PRIMER** and recoating with **ELASTO-DECK B.T. H_20**

WARNING AND HAZARDS:

Before using the products, always refer to SDS for important warnings and safety information. Use only in areas with adequate ventilation. Avoid breathing vapors. Keep away from heat and flame. Avoid contact with eyes and skin. In the event of skin contact, remove immediately and wash with warm, soapy water. Wear suitable eye protection. Always wash hands before eating.

TECHNICAL SERVICE

Technical assistance can be obtained by contacting:
All of the latest updates to product data and specifications are available at holcimpacpoly.com. Since product data and specifications change, it is the user's responsibility to make certain the most current versions of product data and specifications are being used.

PRODUCT WARRANTY:
INSTALL AS DIRECTED ON PACIFIC POLYMERS® PRODUCT DATA SHEET. USER DETERMINES SUITABILITY FOR INTENDED USE AND ASSUMES ALL RISK AND LIABILITY. THIS PRODUCT IS SOLD "AS IS." EXCEPT AS REQUIRED BY LAW, THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IF TERMS ARE NOT ACCEPTABLE, RETURN UNOPENED PRODUCT TO PLACE OF PURCHASE.
DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THESE PRODUCTS.

Complete technical information is available from
Holcim Solutions and Products, US, LLC.