

Terra Seal is a self-adhering, whole-roof underlayment for clay or concrete tile roofing that can withstand elevated rooftop temperatures and has exceptional nail pull-over resistance. Its high-grade polyester fabric surface provides traction when working, is an excellent substrate for approved foam adhesives, and promotes airflow underneath the roofing. Terra Seal is laminated to a high temperature, self-sealing asphalt adhesive protected by a release liner that is removed during installation. Terra Seal can also be used to line valleys, eaves, ridges, rakes, and hips.

## MATERIALS

1. Primer: SA Primer™
2. Adhesive Options: Flashing Bond®, Garla-Flex® or Green-Lock® Plus Flashing Adhesive
3. Heavyweight roller; at least a 40-pounds
4. Hand-held roller

## APPLICATION

### Considerations

- Use caution when working on roof surfaces. Observe all safety guidelines.
- Apply when the ambient air temperature, roll temperature and substrate temperature are all between 50 °F (10 °C) and 100°F (37.7 °C).
- Terra Seal is a vapor retarder; allow for proper ventilation of the roof when required.
- For tile applications, a minimum roof slope of 2½:12 is recommended. Install Terra Seal in accordance with local building codes and the Tile Installation Manual published by the Tile Roofing Institute  
Note: Some codes require an additional base sheet under Terra Seal. Check local building codes for installation requirements and consult with a Garland representative for Terra-Seal application guidelines.
- Stacking tiles: a maximum of 8 tiles per stack are allowed when loading tile onto the Terra Seal. Battens and/or counter battens must be used on slopes of 6:12 or greater to prevent tile sliding during the loading process. A 24-hour cure time for lap adhesives is recommended before stacking tiles on Terra Seal.
- Do not expose to direct sunlight for longer than 180 days.
- Terra Seal may be mechanically attached.

### Surface Preparation

The roof deck must be clean and dry. Prime the surface with Garland's SA Primer. All surfaces to be waterproofed with this product must be smooth, dry, and free of projections, bulges, and old roofing materials. Dust and moisture on the roof surface or the underlayment itself will prevent proper adhesion. Prime substrate with SA Primer at a rate of 0.5 gal./100 sq. ft. (0.21 l/m<sup>2</sup>). Do not use primer over roofing felt or rigid insulation.

Note: Never install this product over any old or existing roofing materials.

## INSTALLATION

### (a) Direct to Deck

1. Starting at the eave, unroll Terra Seal horizontally with the polyester side up and the selvage edge at the top. Remove 12 to 18" of the

protective release liner, align Terra-Seal and stick in place.

2. Continue removing the release liner and press Terra Seal into place.
3. Nail salvage edge and ends laps 12" on center with annular ring shank nails and caps. Refer to building code for nail type and back nailing requirements.
4. Flashing Bond, Garla-Flex or Green-Lock Plus Flashing Adhesive is required at all end laps. End laps must be a minimum of 6". If installing the sheet in strapping fashion, apply previously mentioned flashing adhesive to side laps as well.
5. Position the next course of Terra Seal so it will cover the selvage edge on the first course, align and install. Then, remove the protective release liner from the selvage edge to bond the two courses of Terra Seal together. Roll lap firmly with a hand roller.
6. All side laps must be a minimum of 3" or cover the selvage edge. All end laps must be a minimum of 6". All lap seams must be rolled firmly with a hand roller.
7. At deck joints, use an inverted sheet strip. Cut a 12" strip of Terra Seal and invert (flip over) on the roof deck in a position so half will be under the end of the adjoining sheets. Tack the strip into place before setting the sheets.
8. Roll the entire Terra Seal surface with a heavyweight roller to ensure full contact with substrate or broom if slope prohibits rolling. Garland recommends using at least a 40-pound roller.
9. Cover Terra Seal within 180 days.
10. Metal drip edge, valley and vertical surfaces should be installed under the Terra Seal membrane. A slip sheet must be installed beneath the metal edge. Set the edge metal in a bed of mastic, applied over the slip sheet, fasten the metal edge as required by code, then prime the top surface of metal prior to the application of Terra Seal. For vertical surfaces or penetrations, Terra Seal should extend up a minimum of 3" and the exposed edge protected by metal flashing. Refer to RAS 111.

### (b) Valleys

Roll Terra Seal the entire length of the valley extending it 12" minimum on either side of the center of the valley. Lap the field Terra Seal membrane over the valley membrane a minimum of 3" prior to the installation of the valley metal or self-adhering flashing. Terra Seal self-seals around mechanical fasteners such as nails and screws. Do not leave Terra Seal exposed as the final surfacing of the valley.

### Repair of Terra Seal

Damaged Terra Seal may be repaired by using Garland cold-applied flashing adhesive to the area to be repaired 6" in either direction. Cut Terra Seal patch to size, remove release liner and press into place. Roll entire area with a hand roller to ensure full contact. The repair should be installed so water will run parallel to or over the top of all laps of the patch.

## WEATHER CONDITIONS

Do not attempt application if ice, snow, moisture or dew is present. Bonding substrates must be clean, dry and free of dust or other inhibitors of proper adhesion. Ambient temperature must be 50 °F (10 °C) or rising through the day. Cooler temperatures will negatively impact the properties of the system. Contact your Garland Sales Representative for proper cold weather applications.



## STORAGE

Store roll goods in their original packaging, indoors on pallets protected from the elements. Terra Seal needs to be kept at 70 °F (21°C) for at least 24 hours prior to application. If stored on the roof, all product needs to be under a tarp at all times. Rolls and containers that are improperly stored or have been warehoused for prolonged periods of time could potentially be damaged or go beyond their shelf life. Temperature should range from 60-80 °F (15.5 °C to 26.6 °C) and should not exceed 110 °F (43.3 °C). Indoor ventilated storage is recommended, specifically when ambient temperature is below 60 °F (15.5 °C ) or above 80 °F (26.6 °C).

For more information, visit us at: [www.garlandco.com](http://www.garlandco.com)

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