TERRA SEAL® UNDERLAYMENT

Clay or Concrete Tile Underlayment
Technical Data Sheet

OVERVIEW & FEATURES

Terra Seal is a self-adhering clay or concrete tile roof underlayment that can withstand elevated rooftop temperatures and has exceptional nail pull-through resistance. It is comprised of high-grade polyester fabric laminated to high-temperature, self-sealing asphalt adhesive protected by a release liner that is removed during installation. Terra Seal can be used as the initial underlayment for clay or concrete tile roof applications and can also be used to line valleys, eaves, ridges, rakes and hips.

Applicator Friendly – Terra Seal will lay flat and not wrinkle or buckle during installation while providing exceptional nail pull-through resistance. Terra Seal provides a suitable walking surface when roofing on sloped applications.

High-Temp Resistance – Terra Seal is formulated with high temperature rubberized asphalt which makes it stable in all warm weather climatesTerra Seal can withstand elevated rooftop temperatures without degrading or losing waterproofing capabilities.

Aggressive Adhesion – Terra Seal's strong polyester felt surface provides superior "bite" when installing tiles with foam adhesives. The polyester felt surface also provides excellent slip resistance and better grip during installation.

APPLICATION

When installed properly over wood, OSB, metal or insulated roof decks (where allowed by code), Terra Seal will create an effective barrier against water intrusion. Before installation, ensure all surfaces are completely dry and free of dust, dirt, debris, oil and other contaminants; this can prevent the adhesive from bonding securely to the substrate. Priming is required on all substrates.

Start at the eave and unroll Terra Seal horizontally with the selvedge edge at the top. Position one (1) ply of Terra Seal over the area to be protected, remove 12" to 18" of the release film, and press the underlayment onto the surface of the substrate. Nail selvage 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.

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. 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. Side laps shall be a minimum of 3" or cover the selvage edge; end laps shall be a minimum of 6". Roll seams and all edges with a hand roller to ensure proper adhesion.

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. Roll the entire Terra Seal surface with a heavyweight roller to ensure full contact with substrate or broom if slope prohibits rolling. Cover Terra Sea within 180 days. Reference Terra Seal Application Guide for more detailed instructions.

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).

PRECAUTIONS

- Apply when the ambient air temperature, roll temperature and substrate temperature are between 50 °F (10 °C) and 100 °F (37.7 °C). Application in cool temperatures will negatively affect adhesion.
- All surfaces to be waterproofed with this product must be smooth, dry, and free of projections.
- When loading roof tiles, do not exceed a maximum stack of eight (8) tiles on a 6:12 pitch; loading boards may be used on top of Terra Seal underlayment.
- Do not install over EPDM or TPO rubber roofing
- Do not install over silicone caulking or uncured solvents or sealants.
- Use caution when working on roof surfaces; observe all rules of safety.

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since 1895

Technical Data	Terra Seal
Thickness (ASTM D 5147)	76 mils (1.9mm)
Vapor Permeance (ASTM E 96)	0.02 U.S. perms
Elongation at Break @ 73.4 °F (23 °C) (ASTM D 1970)	MD 211% XD 161%
Tensile Strength at Max Load @73.4 °F (23 °C) (ASTM D 1970)	MD 64 lbf/in. (11 kN/m) XD 46 lbf/in. (8 kN/m)
Tear Resistance (ASTM D 1970)	MD 104 lbf. (465 N) XD 77 lbf. (341 N)
Adhesion to Plywood @40 °F (ASTM D 1970)	119 lbf/ft. width (54 kgf/30.5cm)
Adhesion to Plywood @75 °F (ASTM D 1970)	21 lbf/ft. width (9.6 kgf/30.5cm)
Nail Sealability (ASTM D 1970)	Pass
Slip Resistance (ASTM D 1970)	Pass

Higher temperature will result in reduced skin and over-coat time, lower temperature and/or humidity may extend times.

Roll Dimensions	Terra Seal
Width	3 ft. 3 in. (1m)
Length	67 ft. (20.42 m)
Weight	60 lbs. (27.21 kg)
Nominal Thickness	75 mils (1.14 microns)
Net Coverage	200 sq. ft. (18.58 m^2)
Packaging	16 rolls/pallet

For specific application recommendations, please contact your local Garland Representative or Garland Technical Service Department.

For more information, visit us at: www.garlandco.com

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