

ALT R230 Membrane Roofing w/ Vented Base Layer Specification



Technical Data Sheet

PART 1 GENERAL

System:	New cold liquid-applied reinforced roof membrane and optional light roof traffic surfacing system applied over SBS modified bitumen venting base sheet. Work includes all other ancillary roof work but not limited to installation of venting base sheet, roof drain, penetration and perimeter flashings, sealants and metal work as specified. This specification is recommended for roofing applications with limited access. For projects intended with regular roof traffic, see <i>ALT R230 Membrane Roofing & Walk-able Surfacing</i> specification.
Weather Restrictions:	Do not apply membrane during or with the threat of inclement weather. Application of cold liquid-applied reinforced membrane may proceed while air temperature is between 37°F (0°C) and 95°F (35°C) for ALT primers and finish or 23°F (-5°C) and 95°F (35°C) for ALT R230 membrane, providing the substrate is a minimum of 5 degrees above the dew point temperature, clean and dry.
Roofing Warranty:	Manufacturer's Warranty: Provide 20-year standard manufacturer's warranty under provisions of this section.

PART 2 PRODUCTS

Membrane:	Cold liquid-applied reinforced membrane with non-woven reinforcing fabric, for a finished dry film membrane thickness of .080 inch nominal per ply; slip-resistant aggregate and colored topcoat finish as selected by owner from manufacturer's standard palette of colors; conforming to ASTM C 836. Subject to compliance with requirements, provide ALT R230 resin for use in an adhered membrane waterproofing and surfacing system.
Flashing:	Cold liquid-applied membrane with a non-woven reinforcing fabric, for a finished dry film membrane thickness of .080 inch nominal per ply; integral color finish as selected by owner from manufacturer's standard palette of colors; conforming to ASTM C 836. Subject to compliance with requirements, provide ALT R230 Thixo resin for use in an adhered flashing membrane system.
Accessories:	Provide resin primers, additives, surfacing topcoats, and accessory products as required or recommended by the Membrane Manufacturer.
Venting Base Sheet:	Styrene Butadiene Styrene (SBS) modified bitumen venting base sheet; 180 mil (4.5 mm) minimum attached to the substrate using thermally spot bonded self-adhesive, hot asphalt adhesive spot adhesive or stainless steel mechanical fasteners, providing venting of the membrane underside and vapor diffusion.

PART 3 EXECUTION

Preparation:	<p>All substrates must be free from gross irregularities, loose, unsound or foreign material such as dirt, ice, snow, water, grease, oil, release agents, lacquers, or any other condition that would be detrimental to adhesion of the primer and/or resin to the substrate. All traffic bearing surfaces require scarifying, sandblasting or grinding to achieve a suitable substrate.</p> <p>Substrate shall have maximum moisture content of six (6) percent or 75% relative humidity, and be prepared as required to provide adhesion of the membrane to substrate with minimum bond strength of 219 psi (1.5 N/mm²) on concrete for traffic surfacing applications. Determinations of bond strength and moisture content shall be performed periodically by the Contractor throughout the course of work.</p>
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<p>Venting Base Sheet:</p>	<p>Install venting base sheet in accordance with base sheet manufacturer's current published specifications and recommendations for use as a substrate for a cold liquid-applied membrane.</p> <p>Overlap Joints: Overlap side laps a minimum of 2" and end laps a minimum of 4", or as recommended by the base sheet manufacturer. All joints and overlaps are to be heat-sealed before end of each days work.</p>
<p>Primer:</p>	<p>Prime all substrates as recommended or required by Membrane Manufacturer. Primer is required on asphalt, concrete, wood and metals. For other substrates, contact the Membrane Manufacturer for recommendations.</p> <p><u>Asphalt/Concrete/Wood:</u> Apply two-component ALT Primer with a lambswool roller. Minimum consumption: 0.037 kg/sf (0.4 kg/m²) Cure Time: Minimum of 45 minutes.</p> <p><i>*Note: Consumption and yield of primer will vary depending upon smoothness and absorbency of the substrate.</i></p>
<p>Flashing:</p>	<p>Apply an even base layer of ALT R230 Thixo resin, work ALT Fleece reinforcement into the wet resin saturating from the bottom up removing trapped air using a lambswool roller. Apply supplemental ALT R230 resin directly over the fleece as required to complete saturation and allow to cure until solid.</p> <p>Base Coat: Minimum consumption of 0.19 kg/sf (2.0 kg/m²) Top Coat: Minimum consumption of 0.12 kg/sf (1.3 kg/m²)</p> <p>Laps/Seams: Maintain a minimum 2-inch (5 cm) overlap at all side laps of adjacent fleece rows and 4-inch (10 cm) overlaps at butt laps, tie-ins and flashings (reinforcing and resin).</p> <p>Curing: ALT R230 membrane is rainproof after approximately 30-minutes, and can be walked-on or top coated with aesthetic and/or skid resistant surface topcoat in approximately 45-minutes.</p>
<p>Main Deck Roof Membrane:</p>	<p>Apply an even base layer of ALT R230 resin, work ALT Fleece reinforcement into the wet resin saturating from the bottom up removing trapped air using a lambswool roller. Apply supplemental ALT R230 resin directly over the fleece as required to complete saturation and allow to cure until solid.</p> <p>Base Coat: Minimum consumption of 0.19 kg/sf (2.0 kg/m²) Top Coat: Minimum consumption of 0.12 kg/sf (1.3 kg/m²)</p> <p>Laps/Seams: Maintain a minimum 2-inch (5 cm) overlap at all side laps of adjacent fleece rows and 4-inch (10 cm) overlaps at butt laps, tie-ins and flashings (reinforcing and resin).</p> <p>Curing: ALT R230 membrane is rainproof after approximately 30-minutes, and can be walked-on or top coated with aesthetic and/or skid resistant surface topcoat in approximately 45-minutes.</p>
<p>Anti-Slip Aesthetic Finish:</p>	<p>This finish option provides for the use of medium grain aggregates to create an aesthetic slip-resistant wearing surface. A combination of colored aggregates or a pigmented finish may be used to create a variety of aesthetic treatments.</p> <p><u>Aggregate Bedding Layer:</u> Apply an even layer of ALT Finish 288, or ALT Finish 220 Clear when using color quartz aggregates, using the lambswool roller. Broadcast aggregate into the wet resin to excess for full coverage.</p> <p>Bedding Coat: Minimum consumption of 0.056 kg/sf (0.6 kg/m²) Aggregate: Approximate consumption of 0.46 kg/sf (5.0 kg/m²) or 1.0 lbs/sf</p>

<p>Anti-Slip Aesthetic Finish: (cont.)</p>	<p>Aggregate Sizes: Colored Quartz: 0.3 – 0.8mm (Note: Use ALT Finish 220 Clear) Crystal Quartz: 0.4 – 0.8mm</p> <p>Curing: ALT Finish is rainproof after approximately 30-minutes, and can be walked-on in approximately 2-hours. ALT Finish should be applied within 24-hours of the membrane application.</p> <p><u>Finish Seal-Coat:</u> Apply proprietary aesthetic surface finish and seal coat. Apply an even application of ALT Finish 288 pigmented resin, or ALT Finish 220 Clear when using color quartz aggregate, using a hard rubber squeegee and a lambswool roller. Minimum consumption: 0.046 kg/sf (0.50 kg/m²).</p> <p>Curing: ALT Finish is rainproof after approximately 30-minutes, and can be walked-on in approximately 2-hours. ALT Finish should be applied within 24-hours of the membrane application. If the finished is applied any time after this, the top layer of the membrane must be cleaned with ALT Activator.</p>
<p>Aesthetic Color Finish:</p>	<p>This finish option provides for the use of pigmented finish to create a variety of aesthetic treatments.</p> <p><u>Color Finish Topcoat:</u> Apply proprietary aesthetic surface finish topcoat. Apply an even application of ALT Finish 288 pigmented resin using a hard rubber squeegee and a lambswool roller.</p> <p>Minimum consumption: 0.046 kg/sf (0.50 kg/m²).</p> <p>Curing: ALT Finish is rainproof after approximately 30-minutes, and can be walked-on in approximately 2-hours. ALT Finish should be applied within 24-hours of the membrane application. If the finished is applied any time after this, the top layer of the membrane must be cleaned with ALT Activator.</p>
<p>Staging:</p>	<p>In a normal ALT R230 membrane application, flashings are installed first, followed by the application of the deck waterproofing, aggregate surfacing and seal-coats.</p> <p>Work Interruptions: If work is interrupted for more than 12-hours, use ALT Activator to reactivate the transition area. ALT Activator should be allowed a minimum of 20-minutes evaporation time after application, and over-coated within 60-minutes of application. Re-apply ALT Activator as required to assure proper reactivation of transition areas.</p> <p>Tie-ins: For all tie-in locations, provide a minimum overlap of 4 inches (10 cm), reinforcing fabric and resin.</p>
<p>Water Testing:</p>	<p>Prior to applying aggregate finish and seal-coat, flood test all horizontal applications with a minimum 2” (51 mm) head of water for 24 hours. Mark any leaks and repair when the membrane is dry. Before flood testing, be sure the structure will withstand the dead load of the water. For well-sloped decks, segment the flood test to avoid deep water near drains.</p> <p>Conduct the flood test after completing the ALT R230 membrane application. Immediately after the flood test and all necessary repairs are made apply surfacing and finish.</p>
<p>Protection:</p>	<p>Upon completion of new work (including all associated work), institute appropriate procedures for surveillance and protection of finished work during remainder of construction period. Protect all areas where membrane has been installed.</p>

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