

# ALT R230 Membrane Waterproofing Specification (reflecting pools/fountains)



## Technical Data Sheet

PART 1 GENERAL	
<b>System:</b>	New cold liquid-applied reinforced waterproofing membrane system for aesthetic reflecting pools or fountains in non-potable water applications, including all other ancillary work but not limited to installation of protection layer, decorative hard-scaping, drain, penetration and perimeter flashings, sealants and metal work as specified.
<b>Weather Restrictions:</b>	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 32° 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.
<b>Waterproofing Warranty:</b>	Manufacturer's Warranty: Provide 20-year standard manufacturer's warranty under provisions of this section.

PART 2 PRODUCTS	
<b>Membrane:</b>	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.
<b>Flashing:</b>	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.
<b>Accessories:</b>	Provide resin primers, additives, surfacing topcoats, and accessory products as required or recommended by the Membrane Manufacturer.
<b>Protection Board: (as required)</b>	Provide an acceptable drainage composite or minimum 1" (25.4 mm) extruded high density polystyrene that has a minimum compressive strength of 10 lb./in <sup>2</sup> (69 kN/m <sup>2</sup> ) or as needed. Where required, adhered protection board to ALT R230 membrane using approved adhesive.
<b>Decorative Hard-scape/Ballast:</b>	Provide screened, washed decorative stone gravel as required for aesthetic treatment.

PART 3 EXECUTION	
<b>Preparation:</b>	<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 116 psi (0.8 N/mm<sup>2</sup>) for waterproofing applications or 219 psi (1.5 N/mm<sup>2</sup>) 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>

<p><b>Primer:</b></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/ft<sup>2</sup> (0.4 kg/m<sup>2</sup>) Cure Time: Minimum of 45 minutes.</p> <p><u>Metal:</u> Apply single-component ALT Metal Primer with a lambswool roller. Minimum consumption: 0.016 - 0.02 kg/ft<sup>2</sup> (0.17 – 0.2 kg/m<sup>2</sup>) Minimum Cure Times: 1-hour minimum @ 86° F (30° C) 2-hours minimum @ 68° F (20° C) 3-hours minimum @ 50° F (10° C) 4-hours minimum @ 38° F ( 3° C)</p> <p><i>*Note: Consumption and yield of primer will vary depending upon smoothness and absorbency of the substrate.</i></p>
<p><b>Flashing:</b></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 0.21 kg/ft<sup>2</sup> (2.3 kg/m<sup>2</sup>) Top Coat: Minimum consumption of 0.09 kg/ft<sup>2</sup> (1.0 kg/m<sup>2</sup>)</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><b>Main Deck Roof Membrane:</b></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 0.21 kg/ft<sup>2</sup> (2.3 kg/m<sup>2</sup>) Top Coat: Minimum consumption of 0.09 kg/ft<sup>2</sup> (1.0 kg/m<sup>2</sup>)</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><b>Staging:</b></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</p>

<p><b>Staging: (cont.)</b></p>	<p>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><b>Water Testing:</b></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><b>Aesthetic Finish (Optional):</b></p>	<p>Select one of the following surfacing options for exposed applications requiring aesthetic color and/or textured finish:</p> <p><u>Option 1: Aesthetic Color Finish Topcoat:</u> This finish option provides for the use of pigmented finish to create a variety of aesthetic treatments. 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 at minimum consumption of 0.055 kg/ft<sup>2</sup> (0.60 kg/m<sup>2</sup>).</p> <p><u>Option 2: Slip-Resistant Aesthetic Color Finish Topcoat:</u> This option provides a light-duty slip-resistant roof wearing surface and aesthetic finish using a combination of pigmented finish with mixed-in slip-resistant additive. Pre-mix unit of ALT Finish 288 pigmented resin with 1 to 2 packages of ALT Anti-Slip Additive. Apply an even application of ALT Finish 288 pigmented resin using a hard rubber squeegee and a lambswool roller at minimum consumption of 0.046 kg/ft<sup>2</sup> (0.50 kg/m<sup>2</sup>).</p> <p><u>Option 3: Aesthetic Broadcast Aggregate Finish:</u> This wearing layer provides for the use of medium grain aggregates for aesthetic treatment or to provide slip-resistant wearing surface. A combination of colored aggregates or a pigmented finish may be used to create a variety of aesthetic treatments. Apply an even layer of ALT Finish 288, or ALT Finish 220 Clear, at minimum consumption of 0.056 kg/ft<sup>2</sup> (0.6 kg/m<sup>2</sup>) when using color quartz aggregates, using the lambswool roller. Broadcast 0.4 – 0.8mm kiln-dried quartz aggregate into the wet resin to excess for full coverage at an approximate consumption of 0.46 kg/ft<sup>2</sup> (5.0 kg/m<sup>2</sup>) or 1.0 lbs/ft<sup>2</sup>.</p> <p>ALT Finish is rainproof after approximately 30-minutes, and should be allowed a cure time of approximate 1-hour before walked-on or application of the finished coat. Prior to applying finish, remove excess aggregate from surface by broom, vacuum or oil-free blower.</p> <p><u>Finish Sealcoat:</u> Apply proprietary aesthetic surface topcoat. Apply an even topcoat 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 at minimum consumption of 0.046 kg/ft<sup>2</sup> (0.50 kg/m<sup>2</sup>).</p> <p><u>Curing (Typical all options above):</u> 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>NOTE: Fleece overlaps will be visible in this finished system. To eliminate visible overlaps and provide a smooth aesthetic appearance, apply a leveling layer of ALT RS233 Mortar over the ALT R230 membrane prior to applying finish surfacing.</p>
<p><b>Protection Board:</b></p>	<p>Install protection board to avoid membrane damage by other trades’ or hardscaping. Place protection layer immediately upon curing of ALT R230 membrane. Drainage composite or protection boards may be installed the same day the membrane is applied or immediately after a 24-hour flood test.</p>

<b>Hardscape/Accessory Installation:</b>	Where specified, install decorative stone ballast or paver hardscape material.
<b>Protection:</b>	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.

**DISCLAIMER**

**NO WARRANTY, EXPRESS OR IMPLIED, IS MADE IN THIS DOCUMENT. THE PRODUCT IS NOT CLAIMED TO BE MERCHANTABILITY OR FIT FOR ANY PARTICULAR PURPOSE.** User and certified ALT Global applicators determine suitability only. See individual ALT Global product data sheets, SDS sheets, guide specifications and details for complete information regarding the suitability, application and handling of ALT Global products.