

# ALT R354/R359/RS527 Membrane W.P & Vehicular Surfacing Specification



## Technical Data Sheet

### PART 1 GENERAL

<b>System:</b>	Unreinforced waterproofing and surfacing system for parking decks, ramps and other heavy duty traffic areas over occupied spaces or where a reinforced waterproofing membrane is not required, and all other ancillary work including but not limited to installation of 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 membrane and surfacing may proceed while air temperature is between 37° F (3° C) and 95° F (35° C) for ALT primers, resins, mortars and finishes or 23° F (-5° C) and 95° F (35° C) for ALT R230 Thixo membrane, providing the substrate is a minimum of 5 degrees above the dew point temperature, clean and dry.
<b>Waterproofing Warranty:</b>	Waterproofing Warranty: Provide 20-year standard manufacturer's warranty under provisions of this section.
<b>Surfacing Warranty:</b>	Surfacing Warranty: Provide 10-year material warranty under provisions of this section based on the surfacing option selected.

### PART 2 PRODUCTS

<b>Waterproofing Membrane:</b>	Two-coat cold liquid-applied non-reinforced membrane, for a finished dry film membrane thickness of .080 inch nominal; color as selected by owner from manufacturer's standard palette of colors; conforming to ASTM C 836. Subject to compliance with requirements, provide ALT R354/R359 resin for use in an adhered membrane waterproofing system.
<b>Wearing layer &amp; Surfacing:</b>	Cold liquid-applied topcoat layer for a finished dry film membrane thickness of .060 inch nominal; with broadcast aggregate surfacing, and colored abrasion resistant topcoat as selected by owner from manufacturer's standard palette of colors. Subject to compliance with requirements, provide ALT RS527 Mortar for use in a non-reinforced waterproofing and surfacing system.
<b>Colored Topcoat:</b>	Cold liquid-applied colored abrasion resistant topcoat, for a finished dry film membrane thickness of .020 inch nominal; as selected by owner from manufacturer's standard palette of colors. Subject to compliance with requirements, provide ALT Finish 288 for use in a non-reinforced 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.

### 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 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>
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<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>Concrete:</u> Apply two-component ALT Primer 276 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 Waterproofing:</b></p>	<p>Main deck waterproofing consists of a two coat application of ALT R354 (red) resin and ALT R359 (green) resin.</p> <p><b>Base Coat:</b> Apply ALT R354 (red) resin to substrate at a rate of 0.15 kg/ft<sup>2</sup> (1.6 kg/m<sup>2</sup>) using ALT approved notched squeegee. The Resin should be spread evenly onto the surface. Use caution not to spread resin too thin. ALT R354 membrane is rainproof after approximately 30-minutes, and can be walked-on and topcoated in approximately 1-hour.</p> <p><b>Top Coat:</b> Apply ALT R359 (green) resin to substrate at a rate of 0.15 kg/ft<sup>2</sup> (1.6 kg/m<sup>2</sup>) using ALT approved notched squeegee. The Resin should be spread evenly onto the surface. Use caution not to spread resin too thin. ALT R359 membrane is rainproof after approximately 30-minutes, and can be walked-on and topcoated in approximately 1-hour.</p> <p><i><u>Note:</u> ALT R354/R359 waterproofing may only be applied as a waterproofing layer on interior applications where substrate and structure are sound, exhibit limited deflection and movement.</i></p>
<p><b>Main Deck Wearing Layer:</b></p>	<p>Main deck wearing layer uses coarse grain aggregates to create a highly slip-resistant wearing surface. Aggregate is broadcast to excess for full coverage directly into the ALT RS233 Mortar while wet.</p> <p>Quartz Aggregate: 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> Quartz Aggregate Sizes: Crystal Quartz: 0.7 – 1.2mm Basalt: 0.5 - 1.2mm</p>

<p><b>Main Deck Wearing Layer: (continued)</b></p>	<p>Curing: ALT RS233 Mortar is rainproof after approximately 30-minutes, and can be walked-on and finish coated in approximately 1-hour. Prior to applying finish, remove excess aggregate from surface by broom, vacuum or oil-free blower.</p> <p><u>Finish:</u> Apply proprietary aesthetic surface topcoat. Apply an even topcoat of ALT Finish 288 resin using a hard rubber squeegee and lambswool roller at a minimum consumption of 0.06 kg/ft<sup>2</sup> (0.65 kg/m<sup>2</sup>).</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 12-hours of the ALT RS233 Mortar application.</p>
<p><b>Ramps, High Traffic Areas &amp; Turning Radii:</b></p>	<p>For ramps, high traffic areas and turning radii, ALT RS233 Mortar uses in combination with ALT R268 Textured Coating to create an extra heavy-duty slip-resistant wearing surface.</p> <p><u>Surfacing Layer:</u> Apply an even layer of ALT R268 Textured Coating using a trowel. Back roll the wet resin using a clean ALT roller pre-wetted with ALT R268 Textured Coating for added texture.</p> <p>Wearing Coat: Minimum consumption of 0.33 kg/ft<sup>2</sup> (3.5 kg/m<sup>2</sup>)</p> <p>Curing: ALT R268 Textured Coating is rainproof and can be walked-on in approximately 15-minutes and can bear vehicular traffic in approximately 45-minutes.</p> <p><u>Finish:</u> Apply proprietary aesthetic surface topcoat. Apply an even topcoat of ALT Finish 288 resin using a hard rubber squeegee and lambswool roller at a minimum consumption of 0.046 kg/ft<sup>2</sup> (0.50 kg/m<sup>2</sup>).</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 12-hours of the ALT R268 Textured Coating application.</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, surfacing, broadcast aggregate 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><b>Water Testing:</b></p>	<p>Prior to applying wearing layer, 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 waterproofing application. Immediately after the flood test and all necessary repairs are made apply surfacing and finish.</p>
<p><b>Protection:</b></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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