SECTION 09 96 00

HIGH PERFORMANCE COATINGS - CONCRETE SEALERS

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\*\* NOTE TO SPECIFIER \*\* Premera Coatings; elastomeric coatings.
This section is based on the products of Premera Coatings, which is located at:2051 Reliance Pkwy.Bedford, TX 76021Tel: 844-667-2833Email: [request info (Dfoster@premeracoatings.com)](https://arcat.com/rfi?action=email&company=Premera%252BCoatings&message=RE%253A%2520Spec%2520Question%2520(09965nku)%253A%2520&coid=53485&spec=09965nku&rep=&fax=)
Web: <https://www.premeracoatings.com>
 [ [Click Here](https://arcat.com/company/premera-coatings-53485) ] for additional information.
Discover Sol Gel Primers & Coatings. The technology behind Premera coatings and primers and their unique performance is called sol gel. No Grinding, No Profiling, No Dust with Premera Sol Gels. Existing Crews Double Job Completion Rate.

1. GENERAL
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. High Performance Coatings: Concrete densifiers, sealers
			1. Acrylic concrete sealer. (Premera QuickSeal).
			2. Hydro lock treatment sealer. (Premera HLT-SR)
			3. Quartz mineral barrier sealer (Premera T2 MCM)
			4. Substrate and intercoat adhesion primer (Premera FP1)
			5. Two-component general purpose epoxy primer (Premera GP Epoxy)
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 03 30 00 - Cast-in-Place Concrete.
		2. Section 03 41 16 - Precast Concrete Slabs.
		3. Section 04 40 00 - Stone Assemblies.
		4. Section 05 50 00 - Metal Fabrications.
		5. Section 09 25 23 - Lime Based Plastering.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. Americans with Disabilities Act (ADA).
		2. ASTM International (ASTM):
			1. ASTM D570 - Standard Test Method for Water Absorption of Plastics.
			2. ASTM D638 - Standard Test Method for Tensile Properties of Plastics.
			3. ASTM D695 - Standard Test Method for Compressive Properties of Rigid Plastics.
			4. ASTM D792 - Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement.
			5. ASTM D2240 - Standard Test Method for Rubber Property - Durometer Hardness.
			6. ASTM D2369 - Standard Test Method for Volatile Content of Coatings.
			7. ASTM D2697 - Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings.
			8. ASTM D4060 - Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser.
			9. ASTM D4541 - Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.
			10. ASTM D4752 - Standard Practice for Measuring MEK Resistance of Ethyl Silicate (Inorganic) Zinc-Rich Primers by Solvent Rub.
			11. ASTM D6944 - Standard Practice for Determining the Resistance of Cured Coatings to Thermal Cycling.
			12. ASTM D7234 - Standard Test Method for Pull-Off Strength of Coatings on Concrete Using Portable Pull-Off Adhesion Testers.
			13. ASTM E162 - Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source.
			14. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
			15. ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.
			16. ASTM G154 - Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Materials.
		3. American National Standards Institute (ANSI):
			1. ANSI 326.3 - Dynamic Coefficient Of Friction (DCOF) Of Hard Surface Flooring Materials.
		4. United States Environmental Protection Agency (EPA).
		5. United States Food and Drug Administration (FDA).
		6. United States Department of Agriculture (USDA).
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data:
			1. Manufacturer's data sheets on each product to be used.
			2. Preparation instructions and recommendations.
			3. Storage and handling requirements and recommendations.
			4. Typical installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: Two representative units of each type, size, pattern, and color.
		2. Shop Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction.
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum of five years documented experience.
		2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
		3. Source Limitations: Unless stated otherwise in this specification, provide each type of product from a single manufacturing source to ensure uniformity.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
			1. The intent of the mock-up is to demonstrate quality of workmanship and visual appearance.
			2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
			3. Retain mock-up during construction as a standard for comparison with completed work.
			4. Do not alter or remove mock-up until work is completed or removal is authorized.
	1. PRE-INSTALLATION CONFERENCE
		1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
	2. DELIVERY, STORAGE, AND HANDLING
		1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
		2. Protect from damage due to weather, excessive temperature, and construction operations.
			1. Store on pallets and keep away from extreme heat, freezing, and moisture. Store at temperatures between 50 and 80 degrees F (10 and 27 degrees C). Shelf Life: 12 to 24 months in factory delivered, unopened drums.
	3. PROJECT CONDITIONS
		1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
	4. WARRANTY
		1. Manufacturer's standard limited warranty unless indicated otherwise.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Premera Coatings, which is located at:2051 Reliance Pkwy.Bedford, TX 76021Tel: 844-667-2833Email: [request info (Dfoster@premeracoatings.com)](https://arcat.com/rfi?action=email&company=Premera%252BCoatings&message=RE%253A%2520Spec%2520Question%2520(09965nku)%253A%2520&coid=53485&spec=09965nku&rep=&fax=);Web: <https://www.premeracoatings.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with the provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. HIGH PERFORMANCE CONCRETE COATING APPLICATION ANALYSIS
		1. Always check for moisture in concrete prior to coating.
		2. Moisture Content of Concrete Slab Substrate:

\*\* NOTE TO SPECIFIER \*\* Delete substrate moisture content option not required.

* + - 1. Substrate Moisture Content: Equal to 6 percent or greater.
				1. Apply Premera HLT
			2. Substrate Moisture Content: Below 6 percent.

\*\* NOTE TO SPECIFIER \*\* Delete substrate condition options not required.

* + - * 1. Substrate Condition: Porous:

\*\* NOTE TO SPECIFIER \*\* Delete first application option not required.

First Application: Clear Coat: Apply Quick Seal.

First Application: Stained: Apply Quick Seal with Dye,

Second Application: Apply Premera T2 MCM

For high performance chemical and abrasion resistant floors.

* + - * 1. Substrate Condition: Already coated, non-porous, or polished and in need of a clear coat:

Apply Premera T2 MCM.

* + - 1. Substrate Condition: Smooth or not profiled to receive another Manufacturer's coating.
				1. First Application: Apply FP1 Fusion Primer

Never use FP1 Fusion Primer as a primer for Quick Seal or T2 MCM

* + - * 1. Second Application: Once the FP1 Fusion Primer becomes tacky, apply the other Manufacturer's coating or paint.
	1. HIGH PERFORMANCE COATINGS

\*\* NOTE TO SPECIFIER \*\* Recommended sealer prior to applying Premera T2 MCM on porous surfaces such as new or ground concrete. Add dye for single step stain and seal. Protection of substrates against Moisture, stains, dirt, mold. Suitable for most Natural and Artificial Stone, Concrete, and Masonry Products. Delete if not required.

* + 1. Premera Quick Seal as manufactured by Premera. A single component, spray down, fast-drying acrylic sealer designed to seal substrate pores and capillaries before applying Premera T2 MCM. Sealing new or ground concrete with Quick Seal will double or triple the coverage of Premera T2 MCM.
			1. To Use as a Fast Stain and Seal: 1 to 2 oz ( grams) of Ameripolish Acetone Based Surelock Dye can be added to 1 gallon ( Liter) of Quick Seal.
			2. Seals porous substrates pores and capillaries for better coverage of T2 MCM.
			3. Can add dye for single step stain and seal.
			4. Doubles or triples coverage of T2 MCM.
			5. Fully dry in 2 minutes.
			6. Can be used on most Natural and Artificial Stone, Concrete, and Masonry Products.
			7. Stain and water repellant.
			8. Penetrate the surface of the substrate.
			9. Enhances and deepens natural colors of substrate.
			10. Repel moisture, stains, and mold from within the substrate.
			11. Coverage: Varies depending on porosity and texture of the substrate and applicator.

\*\* NOTE TO SPECIFIER \*\* Delete coverage options not required.

* + - * 1. Smooth Concrete 500 to 600 sq ft per gal (12.27 to 14.72sq m per L).
				2. Broom Finish Concrete 350 to 450 sq ft per gal (8.59 to 11.04 sq m per L).
				3. Porous Concrete 150 to 250 sq ft per gal (3.68 to 6.14 sq m per L).
				4. Split Face Block 200 to 250 sq ft per gal (4.61 to 6.14 sq m per L).
				5. Fluted Block 200 to 250 sq ft per gal (4.61 to 6.14 sq m per L).
				6. Concrete Block 200 to 250 sq ft per gal (4.61 to 6.14 sq m per L).
				7. Brick (Clay) 150 to 300 sq ft per gal (3.68 to 7.36 sq m per L).
				8. Stucco 250 to 300 sq ft per gal (6.14 to 7.36 sq m per L).
				9. Sandstone, Limestone 250 to 300 sq ft per gal (6.14 to 7.36 sq m per L).
				10. Flagstone, Concrete Pavers 250 to 300 sq ft per gal (6.14 to 7.36 sq m per L).
				11. Unglazed Ceramic/Porcelain 400 to 500 sq ft per gal (9.82 to 12.27 sq m per L).
				12. Travertine, Tumbled Marble 300 to 400 sq ft per gal (7.36 to 9.82 sq m per L).
				13. Artificial Stone 250 to 300 sq ft per gallon (6.14 to 7.36 sq m per L).
			1. Technical Data: All values at 77 degrees F (25 degrees C).
				1. Volatile Organic Compounds per ASTM D2369: Less than 0.17 lbs per gal (20 grams per L).
				2. Specific Gravity of Materials per ASTM D792: 6.7 lbs per gal (0.8 kg per liter).
				3. Shelf Life: 12 to 24 months.
				4. Flash Point - Pensky Martin: Less than -4 degrees F (-20 degrees C).
				5. Application Temperature: 45 to 105 degrees F (7 to 40 degrees C).
			2. Processing Properties: Properties and values are highly dependent on equipment, spray gun, mix chamber temperature, pressure, and related parameters. Variations are possible and expected.
				1. Touch Dry: 1 to 2 minutes.
				2. Dry Through: 2 minutes.
				3. Recoat Interval: 2 minutes.
				4. Full Cure: 2 minutes.
			3. Mixing: No need for mixing or diluting.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Clear.
			2. Color: Add 1-2 oz of an Ameripolish Acetone Based Surelock Dye
				1. Specific color to be determined by the Architect.

\*\* NOTE TO SPECIFIER \*\* Premera HLT-SR can be applied directly to densified, polished concrete, terrazzo, and tile. When applied to concrete or any pozzolanic material, Premera HLT-SR penetrates to seal, densify, and harden cementitious surfaces. Premera HLT-SR is formulated to penetrate and block capillaries, voids, and fine shrinkage cracks by reacting with free calcium hydrates to form an insoluble, permanent barrier. It improves water resistance, water repellency, and surface properties of cementitious materials, including concrete. Reduces risk of coating failures associated with moisture migration and outgassing. Concrete surfaces treated with Premera HLT-SR last longer, cost less to maintain, and resist wear, abrasion, and dusting.

* + - * 1. Premera HLT-SR is recommended for use as a pre-priming surface treatment on floorings, liners in immersion application, and adhered waterproofing membranes - including structures under hydrostatic pressure. Premera HLT-SR may be used as a standalone surface treatment in certain applications.
				2. Typical Uses: Densifier on floors subject to medium or heavy traffic. Water resistant surface treatment for concrete and masonry. Sealer for micro leaks in walls and basements. Moisture barrier to protect different types of flooring and floor coverings. Concrete densifier and hardener. Liquid and gas barrier used in containment applications with concrete structures. Rehabilitation plan for deteriorated and contaminated concrete. Waterproofing wet, damp or below grade concrete; contact Premera for specific application instructions for this application. Delete if not required.
		1. Premera HLT-SR as manufactured by Premera. A surface treatment for concrete consisting of specialized reactive chemicals, lithium-colloidal silica matrix, and a super duty siliconate water repellant. Can be used as a concrete surface treatment to reduce micro porosity in cementitious materials or as a complementary pre-primer treatment for Premera's unique advanced polymer coatings.
			1. Zero VOC.
			2. Reduces the porosity and increases durability of the concrete surface.
			3. Densifies and hardens new and old concrete.
			4. Improves chemical resistance and reduces water absorption.
			5. Improves resistance to staining and dusting.
			6. Improves concrete quality, durability, liquid repellency.
			7. Effective chloride and electrolyte barrier.
			8. Re-alkalizes carbonated concrete.
			9. Reduces risk of moisture out-gassing, pin-holing, and blisters in polyurea, polyurethane elastomers, or other top coats.
			10. Technical Data: All values at 77 degrees F (25 degrees C).
				1. Solids by Volume per ASTM D2697: 10 percent.
				2. Volatile Organic Compounds per ASTM D2369: 0 lbs per gal (0 grams per Liter).
				3. Theoretical Coverage:

Broom Finish: 150 to 200 sq ft per gal (4 to 5 sq m per liter).

Burnished Finish: 200 to 250 sq ft per gal (5 to 6 sq m per liter).

* + - * 1. Specific Gravity of Material per ASTM D792: 8.76 lbs per gal (1.05 kg per liter).
				2. Shelf Life: 12 Months.
			1. Processing Properties: Properties and values are highly dependent on equipment, spray gun, mix chamber temperature, pressure, and related parameters. Variations are possible and expected.
				1. Mix Ratio V/V: N/A.
				2. Gel Time: N/A.
				3. Tack Free Time (Temperature, humidity, and wind dependent): 4 hours.
				4. Post Cure Time (Temperature, humidity, and wind dependent): 24 hours.
			2. Mixing: Not to be diluted under any circumstances. The product is ready to use.
			3. Color: Dries clear.

\*\* NOTE TO SPECIFIER \*\* Can be applied directly to densified, polished concrete, terrazzo, tile, and porous surfaces that have been sealed with Premera Quick Seal, and ferrous metals including coated/painted iron and steel or direct to stainless steel and galvanized steel; Non-Ferrous metals including aluminum, copper, and bronze (raw, powder coated, painted, or primed). Concrete walls, structures, floors, masonry pavers, unglazed tile, bricks, and cement block.

* + - 1. Moisture, corrosion/rust, oxidation, galvanic corrosion, acid rain, food and beverage acids, fuels and oils, wind drag, dirt build up, ice buildup and animal and bird waste damage. UV stable. Delete if not required.
		1. Premera T2 MCM as manufactured by Premera. A single component, spray down sol-gel based clear coating designed to protect concrete, terrazzo, tile, and existing coatings by creating a high strength, quartz mineral barrier.
			1. Chemically fuses with substrates and does not require a substrate profile, eliminating grinding or sanding prior to application.
			2. Self-levels allowing applicators to spray down T2 MCM and walk away without backrolling.
			3. Superior resistance to harsh chemicals, abrasion, mold, mildew, moss, chlorides and salt spray, acid rain, UV damage, oxidation, animal and bird waste damage, gum, and graffiti.
			4. Single component, spray down, no backroll, self-leveling clear top coat.
			5. Does not require substrate profile, eliminating grinding or sanding prior to application.
			6. Excellent abrasion and scratch resistance.
			7. Excellent impact resistance.
			8. Excellent chemical resistance.
			9. UV resistant.
			10. Coverage: At recommended spread rate 3 to 4 mils Wet, 1 to 1.5 mils Dry. Coverage rates will vary based on substrate porosity and application method.
				1. Concrete: 400 to 600 sq ft per gal (9.82 to 14.72 sq m per Liter).

On porous surfaces such as new or ground concrete, Premera Quick Seal should be applied 2 to 3 times.

* + - * 1. Densified, 800+ grit Polished Concrete: 600 to 800 sq ft per gal (14.72 to 19.64 sq m per Liter).
				2. Metal: 600 to 800 sq ft per gal (14.72 to 19.64 sq m per Liter).
				3. Existing Coating: 600 to 800 sq ft per gal (14.72 to 19.64 sq m per Liter).
			1. Technical Data: All values at 77 degrees F (25 degrees C).
				1. Volatile Organic Compounds per ASTM D2369: Less than 0.83 lbs per gal (100 grams per liter).
				2. Theoretical Coverage: 400 to 600 sq ft per gal at 1.0 to 1.5 mils DFT (9 to 14 sq m per liter at 0.25 to 0.38 mm).
				3. Specific Gravity of Materials per ASTM D792: 7.36 lbs per gal (0.88 kg per liter).
				4. Shelf Life: 12 to 18 Months.
				5. Flash Point - Pensky Martin Closed Cup: 15 degrees F (-9 degrees C)
				6. Application Temperature: 45 to 105 degrees F (7 to 40 degrees C).
				7. Abrasion Resistance CS-17 1000 Cycles per ASTM 4060: 23 mg Loss.
				8. Surface Flammability per ASTM E162: Heat Index 0; Best Result.
				9. Adhesion to 800 Grit Polished Concrete per ASTM 4541: 1200+ PSI Cohesive Concrete Failure.
				10. Accelerated UV Exposure 1000 hours per ASTM G154: dE: Less than 0.5.
				11. Thermal Cycling per ASTM 6944: No effect.

4 hours at 50 degrees C. 4 hours immersion at 25 degrees C. 16 hours at -29 degrees C.

* + - * 1. Solvent Resistance MEK per ASTM 4752: 1000 Rubs: No effect.
				2. Shore D Hardness per ASTM D2240: 69 to 75.
				3. Operating Temperature: -200 to 350 degrees F (-129 to 177 degrees C).
			1. Processing Properties: Properties and values are highly dependent on equipment, spray gun, mix chamber temperature, pressure, and related parameters. Variations are possible and expected.
				1. Touch Dry: 2 to 3 hours.
				2. Dry Through: 3 to 5 hours.
				3. Recoat Interval: 0 to 60 minutes.
				4. To be Walked On: Min 6 to 8 hours.
				5. To be Exposed to Vehicular Traffic: Min 3 days.
				6. Full Cure: 5 to 7 days.
			2. Mixing: No need for mixing or diluting.
			3. Colors: Always dries clear. Liquid: Clear to slight amber to rose; depending on temperature and humidity.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: Gloss.
				2. Finish: Satin.;
				3. Finish: Matte.

\*\* NOTE TO SPECIFIER \*\* Typical Uses: Serves as adhesion layer between coating and substrate, or between two coatings. Can be applied on coated or uncoated surfaces, concrete, rubber, plastic, fiberglass and glass, porcelain, painted or unpainted iron; aluminum, copper, and other metals; hot rolled steel, cold rolled steel, stainless steel; powder coated and galvanized surfaces.

* + - * 1. Deleteif not required.
			1. Premera FP1 Fusion Primer as manufactured by Premera. A single component, spray on sol-gel based fusion primer that functions as an intercoat adhesion primer or direct to substrate primer.
				1. Creates a molecular bridge between a coating and the substrate, chemically fusing substrate, and top coat.
				2. Very compatible with many surfaces, and many coatings.
				3. Water-based coatings are not compatible as top coats.
				4. When used on concrete substrates, as long as concrete is clean and free of bond breakers such as oils, greases, etc., no grinding or surface profile is needed to achieve a strong chemical bond to surface.
			2. Removes the need to grind, sand or profile substrates or coatings before top coating.
			3. Provides strong bonding to the hard to bond or low/no profile surfaces.
			4. Overcoat Window: 90 minutes. If the window is missed, run a screen or light abrasion, and reapply.
			5. Provides chemical bond to substrate. Becomes one with surface they are applied to.
			6. Use on porous and non-porous substrates; concrete, stones, tile, porcelain, and glass.
			7. UV stable and virtually invisible.
			8. Coverage: Varies depending on porosity and texture of the substrate and applicator.

\*\* NOTE TO SPECIFIER \*\* Delete coverage options not required.

* + - * 1. Porous Surfaces: 300 to 400 sq ft per gal (7.36 to 9.82 sq m per L)
				2. Non-Porous Surfaces: 800 to 1000 sq ft per gal (19.63 to 24.54 sq m per L)
				3. Smooth Concrete: 500 to 600 sq ft per gal (12.27 to 14.72 sq m per L).
				4. Broom Finish Concrete: 350 to 450 sq ft per gal (8.59 to 11.04 sq m per L).
				5. Diamond Grind: 150 to 250 sq ft per gal (3.68 to 6.14 sq m per L).
				6. Over Existing Coating: 800 to 1000 sq ft per gal (19.63 to 24.54 sq m per L).
				7. Concrete Block: 200 to 250 sq ft per gal (4.61 to 6.14 sq m per L).
				8. Concrete Pavers: 250 to 300 sq ft per gal (6.14 to 7.36 sq m per L).
				9. Concrete Slab: 250 to 300 sq ft per gal (6.14 to 7.36 sq m per L).
				10. Tile: 800 to 1000 sq ft per gal (19.63 to 24.54 sq m per L).
			1. Technical Data: All values at 77 degrees F (25 degrees C).
				1. Volatile Organic Compounds per ASTM D2369: Less than 1.25 lbs per gal (150 grams per liter).
				2. Specific Gravity of Materials per ASTM D792: 7.3 lbs per gal (0.87 kg per liter).
				3. Shelf Life: 12 months.
				4. Flash Point - Pensky Martin: Less than 77 degrees F (25 degrees C).
				5. Application Temperature: 45 to 104 degrees F (7 to 40 degrees C).
			2. Processing Properties: Properties and values are highly dependent on equipment, spray gun, mix chamber temperature, pressure, and related parameters. Variations are possible and expected.
				1. Touch Dry: 90 minutes.
				2. Dry Through: 120 minutes.
				3. Recoat Interval: 15 to 90 minutes.
			3. Color: Slight straw yellow liquid.

\*\* NOTE TO SPECIFIER \*\* Typical Uses: Automotive Show Room and Repair Floors. Commercial Bakery and Kitchen Floors. Hospital and Health Care Facility Floors. Laboratory and Research Floors. Manufacturing and Warehouse Floors. Pharmaceutical Floors. School and University Floors. Delete if not required.

* + 1. Premera GP Epoxy as manufactured by Premera. A two-component general purpose epoxy primer, coating, and flooring mortar binder for broadcast and hand-troweled or power-troweled product. A low viscosity, low odor, 100 percent solids thermosetting epoxy. VOC Compliant in all states and provinces in North America.
			1. Complies with USDA, FDA, Food Safety Modernization Act.
			2. Slip Resistant (ADA).
			3. LEED and Green Seal requirements.
				1. Solids: 100 percent. VOC: Zero. EPA Compliant. Low odor during installation. Cures to an inert finish.
			4. Strong Chemical and Abrasion Resistance.
			5. For new floors and resurfacing old floors.
			6. Mixing: A 2:1 product. 2 parts "A" to 1 part "B." Mix Time: 3 to 4 minutes.
				1. Temperature of "A" and "B" Components: 60 to 80 degrees F (20 to 26 degrees C).
				2. Pre-mix "A" and "B" Components to ensure raw material and pigments are dispersed uniformly.
				3. Never shake, agitate, or entrain air when mixing.
				4. Mixing Small Batches: Less than one gallon total.

Use stir sticks.

Mix by Hand: 3 to 4 minutes.

While mixing, scrape the sides and bottom to prevent sticking.

Don't use a drill for amounts smaller than one gallon.

* + - * 1. Mixing Larger Batches: More than 1 gallon.

Use a drill mixer. Mix Time: 3 to 4 minutes.

Mix with a jiffy type impeller mixer that can scrape the bottom and sides of the mixing bucket without chipping the side of the bucket.

Never use a squirrel type mixer which will entrain air into the mix.

* + - 1. Technical Data: All values at 77 degrees F (25 degrees C).
				1. Volatile Organic Compounds per ASTM D2369: Less than 0.05 lbs per gal (5 grams per L).
				2. Theoretical Coverage: 100 to 160 sq ft per gal at 10 to 16 mils WFT (9.3 to 14.9 sq m per gal at 0.25 to 0.41 mm).
				3. Viscosity, Mixed Epoxy and Hardener: 550 to 750 cps.
				4. Pot Life (Reduced when temperature is increased): 20 minutes.
				5. Shelf Life: 12 to 24 months.
				6. Compress Strength per ASTM D695: 10,000 psi (68.9 mpa).
				7. Tensile Strength per ASTM D638: 2,500 psi (17.2 mpa).
				8. Tensile Elongation per ASTM D638: 20 percent.
				9. Adhesion per ASTM D7234: Greater than 400 psi (2.75 mpa)
				10. Hardness (Shore D) per ASTM D2240: 67 to 72
				11. Water Absorption per ASTM D570: 0.1 percent.

\*\* NOTE TO SPECIFIER \*\* Depends on Finished Coat Texture. This test must be run in the field after placement of the Finish Coat by a BOT 3000E Third Party Testing Firm to Validate.

* + - * 1. Dynamic Coefficient of Friction, ANSI 326.3:

Inclines: Greater than 0.45. Level: Greater than 0.42.

* + - * 1. Moisture Vapor Emission Rate per ASTM F1869: 3 lbs.
				2. Moisture Relative Humidity per ASTM F2170: 80 percent RH
			1. Processing Properties: Properties and values are highly dependent on temperature. Variations are possible and expected.
				1. Dry to Touch at 50 to 90 degrees F: 5 to 12 Hours.
				2. Recoat Time at 50 to 90 degrees F: 12 to 24 Hours.
				3. Light Foot Traffic at 50 to 90 degrees F: 44 hours.
				4. Vehicular Traffic at 50 to 90 degrees F: 72 to 96 Hours.
				5. Full Cure: 7 to 14 Days.

\*\* NOTE TO SPECIFIER \*\* Delete color option not required.

* + - 1. Color: Clear:
			2. Color: As determined by the Architect from Manufacturer's standard range.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until the substrates have been properly constructed and prepared.
			1. Do not apply to surfaces that are frozen, dirty, or have standing water, grease, oil, or other contaminants.
			2. Intended concrete surfaces must be clean, dry, absorbent and structurally sound.
				1. Confirm surface absorbency with a light water spray.
				2. Intended surface should wet uniformly.

If the surface does not wet uniformly, use a recommended cleaner, auto scrubber, power washer or other process to remove surface contaminants.

* + - * 1. Surface must be clean and dry prior to application.
		1. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
	1. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
			1. Protect surfaces not designated for coating application.
			2. Surface and Air Temperature: 45 to 105 degrees F (7 to 40 degrees C).
	2. INSTALLATION
		1. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.
	3. FIELD QUALITY CONTROL
		1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection, or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
	1. CLEANING AND PROTECTION
		1. Clean products in accordance with the manufacturers recommendations.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION