Thin Mil Two Coat Chemical Resistant Flooring System

PRODUCT DESCRIPTION

Thermal-Chem Chemical Resistant system is a solid color seamless 100% solids resinous flooring system that combines two coats of Chemical Resistant novalac type epoxy that resist high concentrations of many chemicals. Finished thickness of the two (2) coat system is approximately **24 to 30 mils or approximately 1/32"**

ADVANTAGES

- Superior surface protection
- Extremely durable
- Seamless and sanitary flooring
- Chemical resistant
- Customizable surface profile
- Can be installed over new or old concrete, wood or cementitious topping
- 100% solids and VOC compliant

TYPICAL USES

The **Chemical Resistant** seamless flooring system with the option of a customized textured surface for slip resistance makes it ideal for many commercial and industrial environments.

- Chemical manufacturing facilities
- Pharmaceuticals
- Battery charging areas
- Primary and secondary containment areas
- Acid dip and immersion rooms
- HAZMAT facilities
- Pulp and paper industry

LIMITATIONS

- Concrete slab on grade or below-grade requires vapor/moisture testing. If a vapor drive in excess of 3 lbs. per 1,000 sq. ft. per 24 hours (ASTM F 1869) is present, an epoxy vapor barrier coating must be installed below the **Chemical Resistant Flooring System** for proper performance.
- Do not install system if the ambient temperature and/or concrete substrate temperature is below 45° F or above 90° F. Product cure times are significantly affected by temperatures and can have a major affect on working time. Typically a 50°F decrease of substrate and material temperature will cause a doubling of the cure time of epoxy.
- Allow epoxy to cure for 48 hours prior to exposure to chemicals

PHYSICAL PROPERTIES

Color	To be selected
Solids	Epoxy 100 %
VOC	Compliant
Cure Rate @77° F	Recoat 6-7 hrs
Hardness, Shore D ASTM D 2240	89-93
Elongation ASTM D 638	1%
Compressive Strength ASTM D 695	14,200 psi
Adhesion ACI 503R	350 psi (100% concrete failure)
Abrasion Resistance ASTM D 4060, CS-17 wheel, 1000 cycles	20-25 mgs loss
Flammability	Self-extinguishing over concrete

ASTM D = Resin only

COLOR

The Chemical Resistant Flooring System is available in 12 color patterns. Custom colors are available upon request. Refer to Thermal-Chem Color Chart and color matching policy.

OPTIONS

- Various texture degrees ranging from smooth, medium, to aggressive can be achieved. The contractor should submit a texture sample and receive sign off approval by customer before installation
- A cove base can be installed to provide an integral seal between the floor and wall surfaces.
- Expansion and control joints must be treated to allow for movement. Prior to installation, the different methods should be discussed with the appropriate method per environment selected.
- Deteriorated concrete should be repaired to achieve a smooth level surface.
- The epoxy topcoat may discolor if exposed to sunlight or other UV sources.

SURFACE PREPARATION

Proper surface preparation is essential for proper system installation. New concrete should be cured a minimum of 28 days. The substrate must be dry, clean, and sound. All surface contaminants such as dirt, oil, grease, paint, fats, wax, and concrete laitance should be removed.

GENERAL SUBSTRATES

Thermal-Chem systems can be applied to a variety of substrates if the surface is properly prepared. Surfaces other than concrete such as wood, vinyl tile, ceramic or quarry tile, concrete block, require different degrees and types of prep methods. Thermal-Chem should be consulted prior to start of project.

CONCRETE SUBSTRATE

To insure proper system adhesion, concrete surfaces can be prepared by shot blasting, scarifying, or diamond grinding.

SYSTEM INSTALLATION

BASE COAT BROADCAST

Premix the A component of the basecoat, then pour both A and B components together into a clean mixing container and mix for 2 minutes. Immediately pour the entire mixed material onto the substrate in a ribbon pattern and spread at the rate of 110 to 140 square feet per gallon with a flat squeegee using overlapping two-direction squeegee passes. For edges and hard to reach areas use a paintbrush. Cross roll with a ¼ inch mohair roller. Overlap roller passes to remove squeegee line and roller marks**.** Do not over roll or whip air into the coating. Maintain a wet edge and do not roll back into the epoxy after 15 minutes otherwise the entire floor may require rerolling due to color changes. Allow to cure.

VERSIGARD IS A BY WEIGHT MIX RATIO. (NOT THE SAME AS VOLUME) MIX ONLY FULL UNITS OR WEIGH OUT THE A COMPONENT AND THE B COMPONENT BASED UPON THE LABEL OR DIVIDE THE UNITS INTO EQUAL A PARTS AND B PARTS IF SMALL THAN ONE GALLON UNITS IS NEEDED.

TOP COAT

Premix the resin as described above. Immediately pour the entire mixed material onto the substrate in a ribbon pattern and spread with a flat squeegee using overlapping two-direction squeegee passes as described above at the rate of rate of **100 to 120 square feet per gallon**. Do not allow material to puddle.

FINISHED TEXTURE

Texture is typically achieved through a combination of aluminum oxide sizes, and the thickness and number of topcoats.

One of Thermal-Chem's aluminum oxide sizes (fine, medium, coarse or extra coarse) may be use to enhance an aggressive texture. The use of approximately 1 1/2 to 3 pounds per 100 sq. feet may be applied into the Top Coat and back rolled while still wet.

CLEANUP

Clean up mixing and application equipment immediately after use. Use xylene and be careful to observe all fire and health precautions when handling or storing solvents.
Safe and proper disposal of excess materials shall be done in accordance with applicable federal, state, and local codes.

SYSTEM MAINTENANCE

Thermal-Chem Chemical Resistant Flooring Systems are no-wax floors and when properly maintained will retain their useful life for many years.

GENERAL CARE

ALWAYS WIPE UP CHEMICAL SPILLS TO AVOID STAINING AND LOSS OF GLOSS.
Avoid spinning forklift tires or quick stops and starts
Loose or protruding nails should be removed from pallets or crates.
Refrain from dragging heavy loads or equipment across the floor surface.

CLEANING SCHEDULE

Floors should be swept and dust-mopped on a daily basis. Heavy soil load environments may require wet mopping or auto scrubbing. Dirt, grease, oil, spills, and other surface contaminants represent a safety issue and should be addressed by a daily and weekly floor-cleaning schedule. Facility soil loads, safety, appearance, all contribute to frequency and what type of cleaning is required. Consult Thermal-Chem's Care and Maintenance Guide for polymer floor systems.

DISCLAIMER

The data on this sheet represent typical values obtained by the methods indicated. Since application variables are a major factor in product performance, this information should serve only as a general guide. Such information and recommendations are subject to change and pertain to the products(s) offered at the time of publication. Published technical data is subject to change without notice.

SYSTEM APPLICATION TABLE

	Material	Mix Ratio	Theoretical Coverage	Packaging
Base Coat	750 VersiGard	Weight	110 to 140 sq. ft. / gal	1 and 5 gal units
Top Coat	750 VersiGard	Weight	110 to 120 sq. ft. / gal	1 and 5 gal units