

## thermal-chem.DECOFLAKE - DECORATIVE FLAKE FLOOR SYSTEM

### PRODUCT DESCRIPTION

**DecoFlake** is a decorative seamless flooring system that combines a blend of colored acrylic flakes with a clear polymer matrix. Finished thickness of a single broadcast system is approximately **1/16** inch.

### ADVANTAGES

- Superior surface protection
- Outperforms vinyl tile
- 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 **DecoFlake** seamless flooring system has a textured surface for slip resistance that makes it ideal for many commercial and industrial environments.

- Commercial kitchens and restaurants (not to exceed 140°F wash downs)
- Animal clinics & Doggie daycare
- Pharmaceuticals
- Showers, locker and restrooms
- Healthcare facilities
- Research labs
- Correctional institutions
- Indoor pool decks
- Hospitals – both human and animal
- Residential garage and basement floors

### 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 **DecoFlake** system for proper performance.
- Do not install system if the ambient temperature and/or concrete substrate temperature is below 55° F or above 90° F. Product cure times are significantly affected by temperatures and can have a major affect on working time.
- Allow epoxy to cure for 24 hours prior to exposure to water and 7 days before the use of cleaning chemicals.

### PHYSICAL PROPERTIES

<b>Color</b>	To be selected
<b>Solids</b>	100%
<b>VOC</b>	-0-
<b>Cure Rate @73° F</b>	Dry to touch: 5-7 hrs Recoat: 9-24 hrs Foot traffic: 24 hrs
<b>Hardness, Shore D ASTM D 2240</b>	76-82
<b>Elongation ASTM C 579</b>	3.5%
<b>Compressive Strength ASTM C 579</b>	8200 psi
<b>Flexural Strength ASTM C 580</b>	4,500 psi
<b>Adhesion ACI 503R</b>	350 psi (100% concrete failure)
<b>Coefficient of Friction ASTM F 1679 (dry)</b>	0.90 @ medium texture
<b>Heat Resistance Limits</b>	140° F/60°C (continuous exposure)
<b>Abrasion Resistance ASTM D 4060, CS-17 wheel, 1000 cycles</b>	40 mgs loss
<b>Flammability</b>	Self-extinguishing over concrete

ASTM C = Mortar System  
ASTM D = Resin only

### COLOR

**DecoFlake** is available in 8 stock color blends. Custom patterns are available upon request.

### 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.
- **Optional finish wear coats of polyurea or urethane can be applied to improved wear, chemical, and UV resistance.**
- Deteriorated concrete should be repaired to achieve a smooth level surface.
- Not recommended for areas of harsh chemical usage.
- The epoxy topcoat may discolor if exposed to sunlight or other UV sources.
- **DecoFlake** may water spot if exposed to moisture prior to full cure.

### 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 along with Thermal-Chem's universal pigment 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 with a flat squeegee using overlapping two-direction squeegee passes. For edges and hard to reach areas use a paintbrush. Cross roll with a 3/8" inch roller at a spread rate of **120 square feet per**

**gallon.** Overlap roller passes to remove squeegee line and roller marks. Once the material has been spread, and is still wet (10-15 minutes) begin evenly broadcasting the flake chips to the point of rejection. Broadcasting to rejection typically will require .20 lbs. of flake chips per square foot. The flakes may be broadcast by hand or mechanical blower. Broadcast the flake chips by throwing upward and out. Do not throw downward at a sharp angle that can cause chunks curing unevenly and mounding on the surface. Allow to cure. (cure times vary depending of environmental conditions and base coat product selection) Remove any excess flake by broom or vacuum. The excess flakes may be recycled for future use if properly cleaned by removing dirt and debris. Next lightly scrape the flake by pushing a 12" dry wall knife angled at approximately 30 degrees to remove any high spots or vertical tips of flake. Sweep or vacuum and discard the debris created by scraping. Do not reuse with the 1/4" flake. **Make any necessary cosmetic repairs or touch-ups to the surface of the first broadcast before continuing.**

#### GROUT COAT/FIRST 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.

#### TOP COAT

Cross roll with a 1/4 inch mohair roller at a spread rate of **160 square feet per gallon for an epoxy wear coat.** Overlap roller passes to remove squeegee line and roller marks. Do not allow material to puddle. DecoFlake should be allowed to cure 24 hours minimum before opening to traffic

To substantially enhance UV stability and stain resistance install either DecoFinish # 1057 or DecoFinish # 1061 (Both are aliphatic urethanes and 1061 has the added advantage of being a no odor urethane) Either product may be substituted for the epoxy wear coat.

#### FINISHED TEXTURE

Texture is typically achieved through a combination of aluminum oxide sizes, how aggressively the cured floor is scraped prior to applying a topcoat 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 3 pounds per 100 sq. feet may be applied into first epoxy grout 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 DecoFlake Flooring Systems are no-wax floors and when properly maintained will retain their gloss for several years.

**GENERAL CARE**

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.

Always wipe up chemical spills to avoid staining

**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.

	Material	Mix Ratio	Theoretical Coverage	Packaging
<b>Primer (optional)</b>	Armor Prime 726	2:1	180 sq. ft. / gal	5 gal units
<b>1<sup>st</sup> Broadcast</b>	ArmorPrime #726 Pigmented	2:1	120 sq. ft. / gal	5 gal units
	DecoFlake		0.2 lbs. / sq. ft.	50 lb bags
<b>Grout Coat</b>	DecoTop Clear #748	2:1	100 to 120 sq. ft. / gal	5 gal units
<b>Top Coat</b>	Deco Top Clear #748 Or	2:1	160 sq. ft. / gal	5 gal units
	DecoFinish #1061 Gloss	1:3	300 - 400 sq. ft. / gal	1 1/3 gal units