VERSATILE
HIGH-PERFORMANCE COATINGS

4750 LAVA FLOW® METALLIC SYSTEM

Installation Guide

PRODUCT DESCRIPTION:

Lava Flow® is an interior grade, multi-component, 100% solids high gloss decorative epoxy flooring system. Lava Flow® provides a unique floor finish that has uniform color shift and movement that can be modified by the installer. Unlike stains which require craftsman-like skills to get a repeatable finish, Lava Flow® is designed to be an easy to install product that can offer very similar results each time it is applied. Lava Flow® Epoxy Flooring is self-sealing and does not require a separate topcoat; however, an additional topcoat may be applied if desired to protect it from scuffing or walk off patterns. An addition of a polyurethane or polyaspartic topcoat also provides increased UV resistance for a long-lasting finish.

APPLICATIONS:

- Residential Floors
- Commercial Floors
- Industrial Floors

ADVANTAGES:

- 100% Solids
- Low Odor/ Low VOC
- High-Gloss
- High-Build
- Good Chemical Resistance

LIMITATIONS:

- Will not bridge cracking
- Will discolor and amber under direct UV and spectrum wavelength lighting
- All sources of ignition shall be turned off and adequate ventilation should be used

SYSTEM COMPOSITION:

PRIMER	4195	3A:1B	200 FT^2/ GAL
BODY	4750	2A:1B	66 FT^2/ GAL
ADDITIVE	PIGMENT	-	1 PER 1.5 GAL KIT
TOPCOAT	5085	1A:1B	150 FT^2/ GAL

TECHNICAL PROPERTIES:

VOLUMETERIC MIX RATIO	2A:1B	
SOLIDS CONTENT	100%	
VOC	4 g/L	
POTLIFE (2-GAL MASS)	30 Mins @ 75°F	
WORKING TIME	25 Mins @ 75°F	
DRY TO TOUCH	6-8 Hours @ 75°F	
RECOAT WINDOW	8-24 Hours @ 75°F	
FULL CURE	5-7 Days	
SHORE D HARDNESS	ASTM D3363	80
TENSILE STRENGTH	ASTM D638	4,800 PSI
FLEXURAL STRENGTH	ASTM D790	9,800 PSI
COMPRESSIVE STRENGTH	ASTM D695	8,700 PSI
ELONGATION	ASTM D638	5.4%
ADHESION	ACI 503R	350 PSI
ABRASION RESISTANCE	ASTM D4060	41.2 mg Lost
FLAMMABILITY	SELF-EXTINGUISHING	

CHEMICAL RESISTANCE:

ACETONE	NO EFFECT
XYLENE	NO EFFECT
10% HCL	NO EFFECT
AMMONIA	NO EFFECT
DEGREASER	FAINT SPOTTING
LIQUID PLUMMER	FAINT SPOTTING
VINEGAR	FAINT SPOTTING
CLOROX	NO EFFECT
WINDEX	NO EFFECT
MOTOR OIL	NO EFFECT
GASOLINE	NO EFFECT
SKYDROL	NO EFFECT
HOT TIRE	NO EFFECT

APPLICATION EQUIPMENT:

Protective Clothing	**Lava Flow Applicator Pack** *SKU – 7000A*
Slow Speed Drill	**5-Gallon Bucket** *SKU – 7320*

SUBSTRATE REQUIREMENTS:	
CONCRETE:	Concrete must be structurally sound and free of all dirt, debris, and contaminants
PROFILE:	Concrete shall be porous and have a Concrete Surface Profile (CSP) level between 2 & 4
MOISTURE:	Substrate shall have Moisture Vapor Emission Rate (MVER) of 8lbs / 1000 ft^2 / 24 hr. or less
TEMPERATURE:	Ambient and substrate temps must be above 35°F and Relative Humidity should not exceed 65%

SURFACE PREPARATION:	
	**Perform Moisture Test** using Calcium Chloride concrete moisture test kit per ASTM F1869 1 test/1000 ft^2 is recommended.
	**Patch** all depressions, divots and cracks using 4900 5-minute Crack Weld, 4930 Polyurea Crack & Spall Filler, or Divot Patch to reduce the ability to see the defect through the epoxy coating.
	**Concrete** should be mechanically profiled and prepared to produce a Concrete Surface Profile (CSP) level between #2 & #4 according to the (ICRI) Guideline No. 03732.

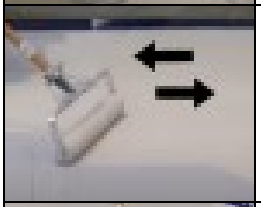
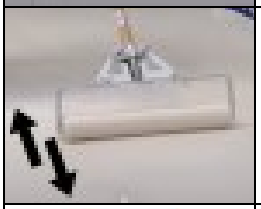
PLEASE REVIEW SAFETY DATA SHEETS (SDS) & CHEMICAL SAFETY GUIDE FOR SAFETY AND PRECAUTIONS

4195 MIXING STEPS:	
	**Premix A-Component with drill at slow speed for 30 seconds to thoroughly blend pigment.**
	**Pour B-Component** into pre-mixed A-Component (If mixing bulk kit be sure to follow specified 3A:1B ratio)
	**Mix A & B Components** using drill at slow speed for 2 minutes (If using optional accelerators add while mixing)
	**Transfer mix to new mixing vessel**
	**Continue to mix** for an additional 30 seconds to ensure components are thoroughly blended.

41 SERIES ACCELERATORS	
37-45°F	2 Accelerators/Gal
45-60°F	1-2 Accelerators/Gal

4195 APPLICATION STEPS:	
COVERAGE RATES:	
1ST COAT	200-250 FT^2 / GAL @ 6.4-8 MILS WET FILM
2ND COAT	225-275 FT^2 / GAL @ 5.8-7.1 MILS WET FILM

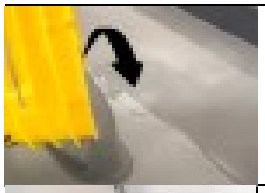
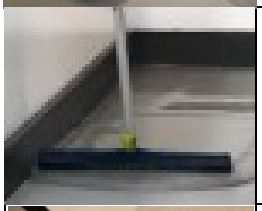
APPROXIMATE WORKING TIMES: 50 MINS @ 75°F	
1 ACCELERATOR/ GAL	**2 ACCELERATORS/GAL**
40 MINS @ 75°F	**30 MINS @ 75°F**

	**Cut in edges and stem walls** if applicable with 4” chip brush and **Pour a band** of mixed material out onto the floor roughly 6-8" wide
	**Begin spreading** with an 8-12 mil notched squeegee or 18”x 3/8” nap roller. Work material evenly keeping a wet edge
	**Perform a Single Backroll** on the surface by walking into the wet material wearing spike shoes and roll perpendicular to your first direction of application.
	**Allow system to dry.** Accelerated 4-6 hours at 75°F and standard 8-12 hours at 75°F before applying secondary 4195 coat. 1-coat applications can be achieved but 2 coats are recommended for uniform coverage and hide.
	If 24 hours has passed surface will need to be sanded prior to proceeding to next steps

4750 LAVA FLOW MIXING STEPS:	
	**Add the metallic pigment pack to the A-component**
	**Mix the metallic pigment into the A-component** for 5-10 mins 24 hrs prior to use to break down all the powder. Mix again at time of installation before proceeding to next step
	**Pour A component through strainer into 5-gallon bucket**
	**Add B-component to strained A-component**
	**Continue to mix** for 3 minutes to ensure components are thoroughly blended.

4750 LAVA FLOW APPLICATION STEPS:
COVERAGE RATES:
66 FT^2 / GAL

APPROXIMATE WORKING TIMES: 25 MINS @ 75°F

	**Pour a band** of mixed material out onto the floor roughly 6-8" wide
	**Begin gauging product across surface** with 15-20 mil notched squeegee. Work material evenly keeping a wet edge
	**Using 9" roller roll the surface in a figure-8 pattern organically to create color flow and motion**
	**Allow system to dry** typically 6-8 hours at 75°F
	**Topcoat is optional but recommended for additional chemical, abrasion and UV resistance.** Surface should be sanded using 100 grit screens prior to topcoat application.

CLEAN-UP:

Immediately clean up splatter marks and tools with MEK or Acetone. Clean hands and exposed skin with mild soap and water, and/or citrus based hand cleaner.

MAINTENANCE:

Maintain 1009 OR 5085 to minimum of 4 mils dry film.

DISCLAIMER:

All information provided in this technical data sheet is based on laboratory data. It is the responsibility of the customer to test the material for their application and conditions prior to using the product.

TEMPERATURE:

The product was tested at ambient temperature (75°F -77°F). Results WILL vary when product is used at temperatures different from testing temperature. The pot life, gel time, and cure time is generally longer for colder temperature applications, and shorter for higher temperature applications. Physical properties are also impacted and dependent upon temperature.

SLIP RESISTANCE:

OSHA and the American Disabilities Act (ADA) have now set enforceable standards for slip-resistance on pedestrian surfaces. The current coefficient of friction required by ADA is .6 on level surfaces and .8 on ramps. Versatile High-Performance Coatings recommend the use of angular slip resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily, or greasy conditions. It is the contractor and end users' responsibility to provide a flooring system that meets current safety standards. Versatile High-Performance Coatings or its sales agents will not be responsible for injury incurred in a slip and fall accident

WARRANTY:

Versatile High-Performance Coatings guarantees that this product is free from manufacturing defects and complies with our published specifications. If the buyer proves that the goods received do not conform to these specifications or were defectively manufactured, the buyer's remedies shall be limited to either the return of the goods and repayment of the purchase price or replacement of the defective material at the option of the seller. Versatile High-Performance Coatings (herein referred to as "seller") makes no warranty, expressed or implied, regarding the use of its products. Since use of this product is beyond the seller's control, the buyer assumes all risk of use. Seller's obligation shall be to replace material if found defective. Seller shall not be liable for any damage, injury, loss, direct or consequential, resulting from the use of its products. End user must determine if substrate is suitable for coating application before installing.

TECHNICAL SERVICES:

Technical services can be obtained by contacting Versatile High-Performance Coatings directly at 214-807-6878.