

#### PRODUCT DESCRIPTION:

4100 Moisture blocking primer/sealer is a 100% solids epoxy clear sealer that is designed to wick deep into the concrete substrate, providing incredible adhesion. It is formulated for use over concrete to mitigate moisture vapor emissions and increase the adhesion of subsequently applied coatings to concrete. 4100 develops a strong bond strength to the concrete floor surfaces, even under cool, wet or damp conditions. 4100 is typically used as a primer for Versatile's Solid X commercial and industrial flooring systems including High Build Epoxy, Epoxy Slurry, Epoxy Mortar, Urethane Cement and other two component floor coating systems. 4100 retards moisture vapor emissions up to 15lbs over 24 hours. It may also be applied as a vapor reduction and odor barrier beneath carpet, VCT and ceramic tile. 4100 can also be used to produce slurries and mortars for patching and repairing substrates or as a standalone sealer over concrete floor surfaces.

#### COMPOSITION:

Specialty propriety blend of 100 % solids epoxy, wetting agents, adhesion promoters and other additives.

#### ADVANTAGES:

- Wicks deeply into concrete substrate
- Use over new or old concrete
- Bonds to damp concrete floor surfaces
- Locks down moisture vapor emissions and odors
- Cures under cool or wet conditions
- Can be accelerated
- Can be thinned with up to ½ pint of Xylene or Acetone
- 100% Solids, 1g/L VOC
- Low odor
- Clear glossy finish

#### LIMITATIONS:

- Will not bridge cracking
- Yellows under U.V. lighting
- Requires minimum temperature of 45 degrees F and 5 degrees F over dew point during install and initial cure cycle

#### COLORS:

Clear

#### COVERAGE RATES:

OVER CONCRETE SUBSTRATE	
1 <sup>ST</sup> COAT	200 FT <sup>2</sup> / GAL
2 <sup>ND</sup> COAT	250 FT <sup>2</sup> / GAL

#### TECHNICAL PROPERTIES:

VOLUMETRIC MIX RATIO	2A:1B	
FINISH	High Gloss	
VOLUMETRIC SOLIDS	100%	
VOC	1g/L	
POTLIFE (1 GAL MASS)	45 Mins @ 75°F	
WORKING TIME	45 Mins @ 75°F	
DRY TO TOUCH	6-8 Hours @ 75°F	
RECOAT WINDOW	8-24 Hours (standard) 6-12 Hours (accelerated)	
FULL CURE	5-7 Days	
PENCIL HARDNESS	ASTM D3363	2H-3H
ADHESION	ACI 503R	350 PSI
TENSILE STRENGTH	ASTM D638	8600 PSI
FLEXURAL STRENGTH	ASTM D790	12,200 PSI
COMPRESSIVE STRENGTH	ASTM D695	10,800 PSI
WATER VAPOR TRANSMISSION	ASTM E96 Procedure B	0.5395 perms 0.2272 grain/hr-ft <sup>2</sup>
FLAMMABILITY	SELF-EXTINGUISHING	

#### CHEMICAL RESISTANCE:

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

#### PACKAGING:

1.5 Gallon Kit	15 Gallon Kit
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#### STORAGE:

Store materials indoors between 50°F & 75°F

#### SHELF LIFE:

One year from date of manufacture




#### APPLICATION EQUIPMENT:

<b>Protective Clothing</b>	<b>18" Roller Frame</b> SKU - 7012
<b>Jiffy Mixing Paddle</b> SKU - 7050	<b>18"x3/8" Nap Roller Cover</b> SKU - 7006-1
<b>Slow Speed Drill</b>	<b>18" Easy Squeegee</b> 8-12 Mil SKU - 7090-K
<b>Spike Shoes</b> SKU - 7045-D	<b>3" Chip Brush</b> SKU 7001

#### SUBSTRATE REQUIREMENTS:

<b>CONCRETE:</b>	Concrete must be structurally sound and free of all dirt, debris, and contaminants
<b>PROFILE:</b>	Concrete shall be porous and have a Concrete Surface Profile (CSP) level between 2 & 4
<b>MOISTURE:</b>	Substrate shall have Moisture Vapor Emission Rate (MVER) of 15lbs / 1000 ft <sup>2</sup> / 24 hr. or less
<b>TEMPERATURE:</b>	Ambient and substrate temps must be above 35°F and Relative Humidity should not exceed 65%

#### SURFACE PREPARATION:

	<b>Perform Moisture Test</b> using Calcium Chloride concrete moisture test kit per ASTM F1869 1 test/1000 ft <sup>2</sup> is recommended.
	<b>Patch</b> 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.
	<b>Concrete</b> 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**

#### ENVIRONMENTAL FACTORS:

Working times are affected by environmental conditions. Large masses of mixed and/or heated material will have shorter pot-life. Keep material core temps between 50-75°F. In elevated temps consider icing buckets to reduce product temps and climates use pail warmers

#### 4100 MIXING STEPS:

	<b>Pour pre-mixed A-Component and B-Component</b> into a clean 5-gallon bucket (If mixing bulk kit be sure to follow specified 2A:1B ratio)
	<b>Mix A &amp; B Components</b> using drill at slow speed for 2 to 3 minutes
	<b>Transfer mix to new mixing vessel</b>
	<b>Continue to mix</b> for an additional 30 seconds to ensure the components are thoroughly blended.

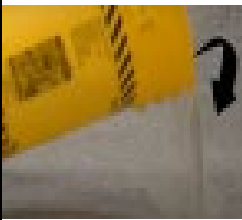
#### 4100 APPLICATION STEPS:

##### COVERAGE RATES OVER CONCRETE SUBSTRATE:

1 <sup>ST</sup> COAT	200 FT <sup>2</sup> / GAL @ 8-12 MILS WET FILM
2 <sup>ND</sup> COAT	250 FT <sup>2</sup> / GAL @ 8-12 MILS WET FILM

#### APPROXIMATE WORKING TIMES:

**45 Min @ 75°F**



**Pour a band** of mixed material out onto the floor roughly 6-8" wide. Begin by cutting-in the concrete stem walls and around the edges with a chip brush or weenie roller. Always keeping a wet edge, do not work more than 15-20 min ahead of main body of the floor.



**Begin spreading** with the Easy squeegee. Work material evenly to a film thickness of approx. 8-12 Mils.



**Perform a Single Backroll** with the 3/8" nap roller on the entire surface by walking into the wet material wearing spike shoes and roll perpendicular to your first direction of application. Make sure to avoid ponding/puddles



**Allow system to dry** typically standard 6-8 hours (standard) at 75°F 2-4 hours (accelerated) before

#### 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.

#### 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.