valspar FLOORING

VAPOR BLOCK
BARRIER SYSTEM

Technical Data Sheet

DESCRIPTION:
Two-component, waterborne, vapor pressure reduction system.

USES:
It is designed to be a seamless vapor reducing system, and is intended to be over-coated with a Valspar concrete floor system.

ADVANTAGES:
- High coefficient of water vapor permeability
- Can be used on damp concrete
- Good stability on green concrete
- Zero VOC – Water based system
- Self-leveling and trowelable
- Matte finish
- Non-skid
- Allows high build installation in single application
- Very good early water resistance & excellent anti-corrosive properties
- Significantly increases the impact resistance of a flooring system. Maximum impact resistance is obtained through a 1/8" wet application.

PACKAGING:
Vapor Block Barrier System is packaged as 2.6-gallon kit.

COVERAGE:
Each single batch will cover 70 sq.ft. at 60 mils WFT.
Each single batch will cover 52 sq.ft. at 80 mils WFT.

ASSOCIATED PRODUCTS:

Preparation:	PC-40 DYNOMITE
	PC-41 SOLV-KWIK
	PC-42 ACID CONDITIONER
Priming:	PR-14 KWIK PRIME

LIMITATIONS:
This product is not designed for exterior use or immersion.

Technical Data Sheets are updated periodically. To ensure the most current version is being used, visit Technical Resources on *www.valsparflooring.com*.

GENERAL PRODUCT DATA:

Color:	White
Coverage:	Maximum 70 sq.ft. per kit.
Thickness:	Recommended 80 mils, Minimum 60 mils
Mixing Method:	**Low speed with "jiffy" mixer only**
Application Method:	Spread with notched trowel or gauge rake and level with spiked roller
Working Time:	Approx. 35 minutes @ 77°F.
Thinner:	NOT RECOMMENDED
Shelf Life:	1 year in unopened containers.
Cure Time:	10-12 hrs. @ 77°F & 50% R.H.
Recoat Time:	24 - 36 hrs. @ 77°F

TYPICAL PHYSICAL PROPERTIES:

Type Test	Test Method	Typical Value
Hardness Shore D Durometer:	ASTM D-2240	80
Bond Strength:	ACI 503R-5, 503R-25, A.1	500+ psi

Proper material application is the responsibility of the user. Site visits made by Valspar personnel are for making technical recommendations only and not for supervising or providing quality control.

Do not apply to floors previously treated with curing and parting compounds or other coatings unless they have been completely removed by mechanical means.

Do not use on vinyl, asphalt, rubber, glazed tile, paving brick, quarry tile, Mexican tile, or similar materials.

Always consult Valspar Flooring Technical Team.

Do not change the mixing components. Mix only complete batches.

Do no add any water, solvent, color additives, or aggregate.

Keep the material from freezing.

Do not apply if the floor or air temperature is below 60°F or over 90°F or if the relative humidity is above 85%. Do not apply over honeycombed or structurally unsound surfaces.

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If the product is to be applied in or near areas containing foodstuffs, they should be removed before the application and until the coating has fully cured and all vapors have dissipated.

Do not thin this product. Addition of thinners will slow down the cure and reduce the ultimate properties of this product. Critical recoat times will also be affected.

As with all high performance coatings, the cured product may become slippery when wet or if exposed to oily conditions.

This product is not to be sprayed.

This product has a limited pot life. Product should not be applied by dipping roller into kit container, but by pouring a bead of product in the form of a ribbon on the surface to be coated.

PRELIMINARY FLOOR INSPECTIONS:

In general, the area to be surfaced must be clean, sound, dry and above 60°F to assure a successful installation.

If there is uncertainty as to whether or not a curing compound or any coating is present on the floor, the following two tests may be performed in order to find out:

1. Pour a cup of water on three or four areas of the floor. If the water puddles out, then there probably is no curing compound or any coating on the floor, and the preparation process may begin. However, it the water beads up like on a waxed car, this may indicate the presence of a curing compound or any coating that must be removed by chemical or mechanical means.
2. Place a drop of PC-42 ACID CONDITIONER on the floor. If the acid bubbles, a curing compound or any coating is not present.

Always be alert to any possible airborne or surface contaminants, which may contribute to problems such as fisheyes, crawling, cratering, etc.

The concrete floor should be examined for the presence of moisture. This can be accomplished by the following means:

1. Calcium Chloride Test
2. Delmhorst Moisture Meter
3. Polyethylene Sheet Method

Calcium Chloride Test: This test method works by a change in weight of moisture absorbing anhydrous calcium chloride and indicates the amount of moisture transmitting out of a large concrete surface area. A pound is the equivalent weight of the water that is emitted from a 1,000 square foot concrete slab surface area in a 24-hour period of time (standard test duration is 60-72 hours). **Testing results must be forwarded to Valspar Flooring Technical Team**. Follow instructions as outlined by the supplier of the test kits. Make sure the concrete surface to be tested is completely clean of any residue and any debris. All seals, including curing compounds must be removed prior to performing tests. Sources: Roofing Equipment Inc., Denver, CO 303-371-7667; Sealflex Industries Inc., Costa Mesa, CA 714-708-0850; Vinyl Plastics Inc., Sheboygan, WI 920-458-4664; and Floor Seal Technology, San Jose, CA 408-436-8181

Delmhorst Moisture Meter - This meter uses electrical resistivity to determine the moisture content of concrete at or below the surface. The most accurate way to get a reading with the probes is to make two holes in the concrete (with a hardened concrete nail). The depth of the 2 probe holes can be approximately 1/16 to 1/8 inch in depth. The probes are then placed in the two holes and a reading is taken. A few readings should be taken at various locations of the floor. It is highly recommended that all concrete slabs be checked for moisture, no matter what the age of the floor.

Polyethylene Sheet Method - An effective method to test for excessive moisture within the concrete (capillary moisture) is the Plastic Sheet Method. This method is done by taping (2 inch duct tape) a 4 mil thick clear plastic sheet 2 foot x 2 foot to the slab surface. The sheet can remain on the surface for 16-24 hours. After this time duration the plastic sheet should be removed and the underside checked for moisture. Note: Prior to taping plastic sheet to floor, thoroughly clean and/or strip any soil or coatings on the surface. This test will not work over chemically hardened concrete. Hardener must be eliminated for this test to be effective.

SURFACE PREPARATION:

All oil, grease, wax, laitance, curing compounds, water-soluble concrete hardeners and other surface contaminants must first be removed. PC-43 WASH OFF REMOVER or PC-46 DRY EZE should be used for removal of sealers, finishes and paints. Inspect the concrete and remove loose or soft concrete by scarifying or sand blasting.

STANDARD TESTS:
Refer to the standard test methods below for further information.

ASTM D 4258-83	Standard Practice for Surface Cleaning Concrete for Coating
ASTM D 4259-83	Standard Practice for Abrading Concrete
ASTM D 4260-83	Standard Practice for Acid Etching Concrete
ASTM D 4262-83	Standard Test Method for pH of Chemically Cleaned or Etched Concrete Surfaces

CHEMICAL PREPARATION:
PC-40 DYNOMITE should be used as directed to remove all traces of grease, oil, and dirt followed by a thorough rinsing to remove all cleaning residues. Remove excess water with a good wet vacuum. To remove laitance and to give a slight texture to area to be surfaced, acid-etch using PC-42 ACID CONDITIONER. Using a 1:1 dilution ratio with water, apply evenly as possible to the surface and vigorously scrub into the surface with a stiff bristle brush or automatic scrubber. Thoroughly rinse with copious quantities of water and use wet vacuum to remove any residues. **Repeat this process until concrete surface is the texture of medium grit sandpaper.**

MECHANICAL PREPARATION:
Mechanically abrade the concrete, by grinding, scarification or “shot-blasting” the surface to the texture of medium grade sandpaper. Next, sweep and vacuum any remaining dirt and dust with a wet/dry vacuum. Removing residual dust will help ensure a tenacious bond from the primer.

Whenever “shot-blasting” is utilized, be careful to leave concrete with a uniform texture. Over “blasting” will result in reduced coverage rates of the PR-7 FLEX PRIME and/or subsequent topcoats. It is also possible that the texture of the “shot-blast” pattern may show through the last coat. This is known as “tracking”.

NOTE: Although, chemical preparation may be required on some surfaces, mechanical preparation is highly recommended and in most cases more efficient. It is not uncommon that a combination of the two is required.

PRIMING:
Prime with one coat of PR-14 at a rate of 400-500 sq.ft./gal. Allow to dry thoroughly until tack free and clear in appearance before coating. This time will vary with temperature and humidity.

MIXING:
It is important to remember that this coating has a limited pot life. Therefore it is wise to check and make sure everything is in order before starting the mixing sequence.

1. Mix Vapor Block PART 1 component for 2-3 minutes at low speed with a jiffy mixer blade.
2. Carefully empty the contents of the Part 2 entirely into the can of Part 1. The Part 1 container is oversized to allow for easy mixing.
3. Mix at very low speed with jiffy mixer until completely blended. This will take about 2-3 minutes. Be careful not to introduce any air bubbles while mixing.
4. Since this product does not need any induction time, it should be used immediately after mixing.

APPLICATION:
This product should be applied by first pouring a bead of material in the form of a ribbon on the surface to be coated. The material should not be left in the container long because it will set faster thus reducing the pot life.

1. Pour properly mixed material onto a controlled area of prepared floor. Spread uniformly with a notched trowel or gauge rake.
2. Use a porcupine roller to remove excess bubbles and facilitate leveling.
3. Pour another batch of mixed material onto floor next to previous material and work together in same manner. Continue to completion.
4. To ensure strong, bonded borders, do not feather the materials. In larger areas the mixed product should be worked into a chase, which is a special groove cut into the concrete floor during the preparation process. Also, terrazzo strips and other similar type control strips can be employed.

POT LIFE:
Approximately 35 minutes at 77°F. This is based on not leaving the mixed materials in the mixing pail any longer than absolutely necessary.

CURE TIMES:
At a cure temperature of 77°F & 50% R.H., allow 10-12 hours for initial cure.

CLEAN-UP:
Equipment should be cleaned immediately after use with soap and water.

CRITICAL RECOAT TIME:
It is important to apply subsequent coats of this and other products after the 24-hour recoat time (under normal curing conditions). Maximum recoat time is 36 hours.

TROUBLE SHOOTING:

PROBLEM OBSERVED	POSSIBLE CAUSES
Fisheyes	Oil Contamination; Improper substrate cleaning; Mold Release Agents; Improper Mixing.
Peeling From Substrate	Insufficient preparation process; Oil impregnation.
Peeling Between Coats	Past critical recoat time; Contamination between coats.
Coating Soft, Dulling	Improper mixing; Use of thinner in product; Extreme weather conditions.
Slow Cure	Low floor and ambient temperatures; Use of thinner in product; Improper mixing; Product applied too thin.
Fast Cure	High floor and ambient temperatures.
Bubbling	High temperatures; Working product past pot life; Improper mixing overworked the product.
Lack Of Uniform Flow	Under application of the material.

REFER TO MATERIAL SAFETY DATA SHEET FOR FURTHER SAFETY AND HANDLING INFORMATION.

See individual labels for more caution statements.

KEEP OUT OF THE REACH OF CHILDREN.

DISPOSAL:
Dispose in accordance with federal, state, and local regulations. Use licensed hazardous waste company.

Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned.

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