



Two component Vapor / Oil / Radon remediation system designed for use under CMP engineered cements

DESCRIPTION:

V-20 PLUS is a 2-component epoxy system capable of reducing MVER of up to 20 lbs. to 3 lbs. or less effectively protecting finished flooring. Its extremely dense, deep penetrating, chemical matrix can block moisture as well as oil, radon and other contaminants from migrating through the surface of the substrate. V-20 PLUS can be used on, above or below grade for both interior and exterior applications and can be applied to moist or Green concrete that is a least 5 days old.

09 96 56
Epoxy Coatings

3

07 26 00
Vapor Retarders

9

PRODUCT FEATURES:

- ▶ Single coat application : Does not require a primer coat
- ▶ Complete broadcast system (EB-20 Sand provided)
- ▶ Reduces MVER from 20 lbs. to 3 lbs or less per ASTM E-96-95 Testing
- ▶ Can receive coatings in as little as 12 hours (Depending on Temp. and Humidity)
- ▶ Blocks migration of oil and other contaminants
- ▶ Works on both moist and 5 day old "Green" concrete
- ▶ Meets USDA guidelines and will not support the growth of mold or mildew
- ▶ Radon & Alkalinity protection to pH 14
- ▶ Low VOC

TESTING:

Contaminates: CMP recommends facility owner does core testing when slab history is unknown and requires testing for written warranty applications. Contact CMP for test, contaminates and laboratories.

Moisture: Conduct Anhydrous Calcium Chloride per ASTM F1869 to determine the MVER in lbs / 24 hours per 1000 sq ft. and RH test per ASTM F 2170 to determine moisture content is below 95% RH.

NOTE: Significant variations in MVER can occur in different sections of the slab and the MVER can fluctuate significantly depending on season. It is recommended to perform a test application for bond on older slabs that may have had a sealer applied or in situations where an epoxy coating has been removed.

SURFACE PREPARATION: (VAPOR)

Remove all existing floor covering then Shot-Blast, Grind, Shave or use Hydro-Demo to bring substrate down to bare, clean, structurally sound concrete with a minimum ICRI CSP 3-5. Acid etching or chemical cleaning can NOT be used. All concrete substrates must have a Min. compressive strength of 2500 psi, be clean, sound and have an absorptive surface. Gypsum underlayments, cannot be treated with V-20 Plus. Torch off and vacuum any exposed reinforcing fibers. Chase non-moving cracks, thoroughly clean and fill with V-20 PLUS and EB-20 Sand. Clean all dynamic joints such as expansion, isolation and control by applying a layer of V-20 Plus into the joint with a paint brush. Completely coat the walls of the cavity and fill joint with EB-20 sand. Vacuum out excess sand after initial cure and treat joint as required to accommodate finished flooring as per manufacturers guidelines.

NOTE: Moving cracks can breach Vapor System and allow free passage of moisture. Perform structural crack repairs following industry standards prior to application where required.

SUBSTRATE PREPARATION: (OIL)

First follow the guidelines for "Substrate Preparation Vapor" then proceed as follows. Do not check for absorption until after oil remediation. For Microbial remediation, follow manufacturer's instructions . High

Packaging:

2.1 Gallon Premeasured Unit V-20 Plus
2 - 50 lb Pails EB-20 Sand

Color:

Light Blue

Shelf Life:

6 Months

Storage:

Store in cool, dry area at 70°

Coverage:

200 sq. ft. per Kit

Number of Coats Required:

One with Sand Broadcast

Approximate Application Thickness:

16 mils

Application Temperature Range:

50° F - 85° F

Pot Life: (75° F)

60 minutes (Increase in temperature will decrease the amount of pot life)

Open to Foot Traffic:

12 Hours* @ 72° F 50% RH

Accepts Subsequent Coatings:

12 hours* @ 72° F 50% RH

Compressive Strength: (ASTM C-109)

28 Days 10,000 psi 69.0 MPa

Required Tools:

Soft-edge notched squeegee, non-shed synthetic roller, long handled scrub brush, pump-up type sprayer, metal athletic type cleats or lawn aerators, low rpm drill, jiffy type mixing paddle

pressure steam can also be used to extract oil from the contaminated substrate. For both applications rinse the surface with a pressure washer min. 2500 psi. and retreat any areas that show signs of water beading. Dispose of all waste water as per local guidelines. Maintain SSD (Saturated Surface Dry) through V-20 PLUS application to prevent oil from migrating back to surface.

MIXING: (Material should be 60°F minimum at time of mixing.)

Use chemical resistant gloves and goggles when mixing or applying V-20 PLUS and use a NIOSH / MSHA approved respirator when working in poorly ventilated areas. V-20 PLUS comes supplied in the proper mix ratios; only mix complete kits. Do not thin, alter or add "Cab-O-Sil" to the mix. Add all of part B by piercing a hole through the top and bottom of the container. Allow ALL of Part B to drain into Part A and mix thoroughly for approximately 5 minutes using a low speed (300 rpm) drill and Jiffy type wand. Mix until a uniform color and consistency is achieved. Avoid any mixing actions that would entrap air in the mix and be sure all material on the sides and bottom is thoroughly incorporated into the matrix.

APPLICATION:

Protect application area from sun, rain, moisture, wind and drafts for 6 hrs at 70° F. Minimum slab and air temp for application is 50° F. To prevent pinholes dampen all areas to be treated 2-3 times with clean potable water prior to application. Bring prepared substrate to **SSD** (Saturated Surface Dry) with no puddling or water sheen on surface. Maintain **SSD** throughout application. Have a finish mop and wringer pail available if excess water needs to be picked up. To ensure proper coverage, carefully mark out 200 sq. ft. sections for the placement of each V-20 Plus Kit. Complete each step quickly and in an orderly manner. On large projects, have enough manpower to assign someone to each task so that the project moves in a continuous manner.

Pour the mixed V-20 PLUS and distribute evenly over moist substrate with a notched squeegee. Carefully work material into the pores of the concrete with a long handled brush. Back roll immediately with a 3/8 nap, non-shed roller to achieve uniform coverage; work your way out of the material. Wearing spiked shoes, immediately broadcast EB-20 Sand at the rate of 1/2 lb. per sq. ft into the wet V-20 Plus. Sand is a full broadcast application to rejection, "Beached". **Once broadcasted, the sand should be the only visible part of the system.** After (12-16 hours), once surface can support traffic, vacuum up all loose sand and apply CMP cement based product.

Re-apply V-20 Plus to any out-gas channels, pin-holes or fisheyes after grinding surface and cleaning with Isopropyl alcohol.

UNDERLAYMENTS & TOPPING:

After removal of the excess EB-20 Sand by vacuuming, the remaining bonded EB-20 becomes the primer. It forms a mechanical bond with the applied cement based material so no additional primer should be applied. As long as the surface is kept clean and dry there is virtually no maximum open time prior to the application of the CMP cement based products.

Self Leveling Underlayments & Toppings: Use the mix design specified on the product being used and pour material directly over the remaining bonded EB-20 Sand. Use standard application and finishing procedures.

Trowelable Underlayments: Depending on the condition of the original substrate a single application of SR-P may be suitable for standard floor coverings such as carpet. For more sensitive materials like vinyl and rubber additional coats of CMP Ultra Finish may be required.

FINISHED FLOOR SYSTEMS:

After underlayment has cured, apply and use flooring adhesives and techniques recommended for standard porous substrates.

APPLICATION NOTES:

1. Post-cracking of the concrete, slab warping or warping relaxation at joints or cracks after installation may cause a breach in the V-20 Plus and void warranty.

Eligible LEED credits : 2

Low Emitting Materials-Coatings (IE 4.2)
1 Point

Waste Management - Pails (MR 2.1)
1 Point

Qualifying Warranties:

1 Year, 10 Year, Lifetime

Health & Safety:

Please refer to the Material Safety Data Sheet (MSDS) prior to using this product. MSDS sheets are available by calling 215.672.6364 or you can visit www.levelingcements.com

Flammability: (ASTM E84)

Flame Spread: -0-
Fuel Contribution: -0-
Smoke Development: -0-

Clean Up:

Clean with mineral Spirits immediately after use

Manufactured By:

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