

VC-2000 Base Coats EXTREME HEAT: HYBRID HI-PERFORMANCE POLYUREA

TECHNICAL DATA SHEET (TDS)

Description

VC-2215T-EX or VC-2225G-EX Base Coat is a two-component, slow curing, low odor, hybrid polyurea/polyurethane coating system designed primarily for use under broadcast flakes or quarts for a quick turnaround. VC-2215T-EX or VC-2225G-EX Base Coat allows for broadcast systems to become a one day install system. This system exhibits very good appearance and chemical and physical properties.

Primary Applications

Vital Coat VC-2215T or VC-2225G is an excellent choice for many applications.

- Commercial application
- Schools and universities
- Basements
- Retail, Restaurants
- Residential applications
- Residential garages
- Manufacturing and warehouse floors
- Healthcare and medical offices

Features/Benefits

- Fast Set Times
- High Solids for Maximum Adhesion
- Low Odor
- Excellent abrasion and impact resistance
- Resistant to hot tire peel
- VOC compliant in all 50 States and Canada

Technical Information

Property	Result
Mix Ratio, By Volume	2A:1B = 2:1
Mix Ratio, By Weight	A:B = 100:50
Pot Life (16oz)	35 minutes @77° (25 C°)
Volume Solids % By Weight	Part A:100% - Part B: 100%
Density (KG/L)	Part A:1.10 - Part B: 1.0 - Mixed: 1.05
Tack Free Time @77°F 50% RH	1-2 Hours
VOC Content	75.4 g/L
Flash Point	>212°F
Dry to Touch	1-2 hours
Min/Max Re-Coat Time	2 to 8 hours

Properties

Property	Result
Abrasion resistance, ASTM D4060 Taber wheel/1000G (2.2LBS) / 1000 Cycles	32 mg loss
Flexibility 1/8" Mandrel - ASTM D1737	Pass
Viscosity @ 77°F (25°C)	90 KU
Gloss, ASTM D523	60 Flat
Tensile Strength, ASTM D412	3600 psi
Elongation at Break, ASTM D638	200%
Tear Strength (PLI), ASTM D2240	3600

Note* Times are approximate and will be affected by changing ambient conditions, especially changes in temperature and relative humidity. High temp or humidity cause faster cure.

Packaging

This product is available in 3 US gal (7.57L) EX Mix Kit or 15 US gal (56.7L)

Coverage/Thickness

	PRIMER	FINISH COAT
Recommended Thickness	10 mils	13 mils
Coverage@Recommended Thickness	150 ft ² /gal	120 ft ² /gal

Note* The indicated coverage is calculated for flat surfaces. A porous surface will require more material in order to cover the same area.

Shelf Life

This product has a shelf life of up to one year in its original, sealed, unopened container. If product appears to be hardened or separated contact Vital Coat before use. Keep away from extreme cold, heat or moisture. Keep out of direct sunlight and away from fire hazards.

Directions for Use

Surface Preparation: Surfaces must be dry, structurally sound, free of dust, dirt, and all other contaminants and can readily accept water. Sound Concrete and replace areas that are failing due to poor placement or extensive environmental abuse. Cracks and joints should always be treated as moving, with the possibility they will continue moving after the coating is placed. Expansion joints must always be honored since they allow movement in the slab. Holes and divots in the surface should be filled with a suitable material. Semi-rigid joint fillers may be applied in control joints prior to application of the coating, but if excessive movement occurs, a crack will form in the surface of the coating along the joint. Flexible joint sealants should only be applied after the coating is completed and cured. Expectations should be set with the client prior to commencement of the project so they understand that the coating, when bonded properly, will move as the concrete substrate does.

Concrete surface must be clean, sand blasting, diamond grinder w/30 grit or coarse, or water blasting is highly recommended to remove surface contaminants. Any oils or fats must be removed prior to product application. Do not apply to wet substrates. Chloride, moisture, and pH levels should be checked prior to application.

Profile

Concrete must be profiled to a CSP-2 or CSP-3 for proper bonding. Acid etching is not an acceptable option for smooth or power troweled surface. A water drop test should be performed to make sure water quickly penetrates the surface and darkens it. If water sits on the surface for longer than 15 seconds the concrete is not porous and must be mechanically profiled by shot blasting or diamond grinding. The coverage applied should be considered when choosing the coarseness of the diamond. Surface must be completely cleaned after the mechanical preparation process.

Mixing:

The amount of material mixed should only be what can be utilized within the listed pot life of the product. Each component should be mixed thoroughly with individual tools, part B may be shaken in lieu of mixing. VC-2000 EX is to be mixed at a ratio of 2 parts A to 1 part B. In clean mixing containers. Pour the correct ratio in and mechanically mix for 3 minutes using a Jiffy-style mixer.

Application:

Mixed product may be poured onto the floor in thin ribbons then spread and backrolled. A flat or notched squeegee is the most efficient method to quickly get the material across the floor. Make sure to back roll in opposite direction for uniform product application. Small chip brushes or 6 – 8" wall edgers may be used along the perimeter and in more difficult to reach areas. Avoid creating puddles. Alternatively, dip and roll the product from a roller pan. Do not over-work the product.

Recoat time listed above is directly affected by the ambient surface temperature. Apply additional coatings as early in the recoat window as possible for the best results. Even within the recoat window it is recommended to abrade and clean the existing coat. If the recoat window has passed, it is critical to thoroughly abrade the surface with 80 to 120 grit sanding screens. Thoroughly clean the existing coating before abrading to remove potential contaminants.

Drying/Cure Times

Tack-Free	1-2 Hours
Recoat Time	2 Hours
Foot Traffic	2-4 Hours
Heavy Equipment Traffic	24 Hours
Full Cure	8-16 Hours

Note* Times are approximate and will be affected by changing ambient conditions, especially changes in temperature and relative humidity.

Curing: Do not touch treated surface during curing. Do not add water or allow water to come in contact while curing. Protect surface from debris coming in contact with surface while drying.

Clean-up

Clean all application equipment with a specified cleaner. Once the material hardens, it can only be removed mechanically. If the product splatters, wash thoroughly with hot soapy water.

Precautions/Limitations

Before handling, consult the Safety Data Sheet and Container Labels for physical and health hazard information.
Minimum/Maximum temperature of substrate: 42 degrees F/ 86 degrees F (5 degrees C/30 degrees C)
Maximum relative humidity during application and curing: 85%
Substrate temperature must be 5.5 degrees F above dew point measured
Humidity content of substrate must be <4% when coating is applied
Do not apply on porous surfaces where a transfer of humidity may occur during application
Protect from humidity, condensation and contact with water during the 24 hour initial curing period.

Chemical Resistance

Acetone	D	Nitric Acid 20%	NR
Ammonium Hydroxide 50%	D	Phosphoric Acid 10%	E
Water Chlorinated	D	Phosphoric Acid 50%	NR
Clorox (10%) Water	E	Skydrol	D
Diesel Fuel	D	Sodium Hydroxide 25%	E
Gasoline	D	Sugar Water	E
Hydrochloric Acid 20%	D	Sulfuric Acid 10%	E
Isopropyl Alcohol	E	Sulfuric Acid >50%	NR
MEK	NR	Sugar Water	E
Methanol	E	Sulfuric Acid 10%	E
Motor Oil	E	Sulfuric Acid >50%	NR
Muriatic Acid 10%	E	Vinegar/Water 5%	E
Xylene	D	Water	E

E	=	Excellent
D	=	Discolors
NR	=	Not Recommended

Health and Safety

Always wear proper safety equipment to protect eyes and skin. Keep a neat, clean mixing area to avoid potential safety issues. Make sure to read and understand all SDS sheets and become familiar with all application procedures and best practices. Recommended for use by professionals only! In case of skin contact, wash with water and soap. In case of eye contact, immediately rinse with water for at least 15 minutes. Consult with a doctor. For respiratory problems, transport victim to fresh air. Remove contaminated clothes and clean before reuse. For more information, consult the material safety data sheet.

Components A and B contain toxic ingredients. Prolonged contact of this product with the skin is susceptible to provoke an irritation. Avoid eye contact. Contact with may cause serious burns. Avoid breathing vapors release from this product. This product is a strong sensitizer. Wear safety glasses and chemical resistant gloves. A breathing apparatus filtering organic vapors approved by the NIOSH/MSHA is recommended. Predict suitable ventilation.

Important Notice

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Publish Date 6/23/2020

Revisions

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