

TECHNICAL DATA- CRYSTALCOAT 320

POLYASPARTIC COATING

PRODUCT DESCRIPTION:

Dymond CrystalCoat 320 is a solvent based two component 85% solids polyaspartic aliphatic urethane clear coating. Dymond CrystalCoat 320 has excellent chemical resistance, hardness, abrasion resistance, UV stability and has an excellent clear Gardner color. However, the outstanding feature of this product is its exceptionally quick tack free time of around 1-2 hours for foot traffic.

RECOMMENDED FOR:

Recommended for areas where a thin/medium build clear coat is desired over a broadcast system and installation downtime is very limited. This product is suitable as a thin/medium build coating only.

SOLIDS BY WEIGHT:

85% (+/- 3%)

SOLIDS BY VOLUME:

81% (+/-3%)

VOLATILE ORGANIC CONTENT:

Less than 159 grams per liter

COLORS AVAILABLE:

Clear – Gardner color 1

RECOMMENDED FILM THICKNESS:

5-12 mils wet.

COVERAGE PER GALLON:

133-320 square feet per gallon.

PACKAGING INFORMATION:

1 ½ gallon kit, 3 gallon kit (net approximately)

MIX RATIO:

Two parts A to one part B by volume (volumes approximate)

SHELF LIFE:

6 months in unopened containers

FINISH CHARACTERISTICS:

Gloss (>70 at 60 degrees

COMPRESSIVE STRENGTH:

12,000 psi @ ASTM D695

TENSILE STRENGTH:

3,900 psi @ ASTM D638

ULTIMATE ELONGATION:

2.4%

HARDNESS:

Shore D= 80

ABRASION RESISTANCE:

Taber abraser CS-17 calibrase wheel with 1000 gram total load and 500 cycles= 21 mg loss

VISCOSITY:

<1000 centipoise typical

DOT CLASSIFICATIONS:

Part A "FLAMMABLE LIQUID N.O.S., 3, UN1993, PGIII"

Part B "Not Regulated »

CURE SCHEDULE: (70°F) (70% relative humidity)

pot life – (150-gram mass).....30-60 minutes

(actual usable working time is approximately 5-10 minutes)

tack free (dry to touch).....1-3 hours

recoat or topcoat.....2-4 hours

light foot traffic.....3-5 hours

full cure (heavy traffic).....24-48 hours

APPLICATION TEMPERATURE:

50-90 degrees F with relative humidity below 85%

CHEMICAL RESISTANCE:

REAGENT	RATING
xylene	C
1,1,1 trichloroethane	B
MEK	A
methanol	B
ethyl alcohol	B
skydrol	C
50% sodium hydroxide	E
10% sulfuric acid	C
10% HCl (aq)	C
5% acetic acid	C

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

PRIMER:

Recommend a suitable primer and testing to determine suitability.

TOPCOAT:

None recommended

LIMITATIONS:

Due to the quick cure rate and dry time, it is suggested that the user obtain a sample and thoroughly evaluate

the product before using. Samples are available upon request.

Color stability may be affected by environmental conditions like high humidity/chemical exposure. Exposure to some types of lighting such as sodium vapor lights may cause discolorations. Test Data based on neat resin.

Clarity of color may vary from batch to batch. Substrate temperature must be 5°F above dew point. Too thick of an application may result in surface imperfections, bubble generation or product failure.

Always apply a test patch to determine product suitability and adhesion performance for your proposed application method and procedures.

All new concrete must be cured for at least 30 days prior to application.

Do not expose this product to water until fully cured.

See reverse side for application instructions.

Physical properties are typical values and not specifications.

See reverse side for limitations of our liability and warranty.

MIXING AND APPLICATION INSTRUCTIONS (CrystalCoat 320)

1) **PRODUCT STORAGE:** Store product at normal room temperature before using. Continuous storage should be between 60 and 90 degrees F. Low temperature or temperature fluctuations may cause crystallization.

2) **SURFACE PREPARATION:** The most suitable surface preparation would be a brush blast (shot blast) to remove all laitance and provide a suitable profile. All dirt, foreign contaminants, oil and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete is dry; this can be done by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate is dry enough to start coating. The plastic sheet testing is also a good method to determine if any hydrostatic pressure problems exist that may later cause disbonding.

3) **PRODUCT MIXING:** This product has a mix ratio of two parts A to one part B by volume (volumes approximate). Standard packages are in pre-measured kits and should be mixed as supplied in the kit. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. After mixing, transfer the mixed material to another pail (the transfer pail) and again remix. The material in the transfer pail is now ready to be applied on the properly prepared surface. This product has a short usable pot life of about 5-10 minutes which is substantially shorter than the actual gel time for the product. Applying the product beyond the usable pot life can result in surface irregularities.

4) **PRIMING:** A suitable primer should be used before applying this product. However, whether a primer is used or not, it is advisable to apply a test patch prior to using this product to determine if the adhesion characteristics are suitable for the service environment.

5) **PRODUCT APPLICATION:** The mixed material can be applied by brush or roller. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process. This product is only intended for use as a thin build topcoat. Improper mixing may result in product failure. It should be pointed out that relative humidity can have a dramatic influence on the curing characteristics. The product will dry quicker and have less working time when the relative humidity is higher while a lower relative humidity will lengthen the dry time and working time.

6) **RECOAT OR TOPCOATING:** This material can be applied in multiple coats. If you opt to recoat this product, you must first be sure that the coating has tacked off before recoating. Always remember that colder temperatures will require more cure time for the product before recoating can commence.

7) **CLEANUP:** Use xylol

8) **FLOOR CLEANING:** Caution! Some cleaners may affect the color of the floor installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.

9) **RESTRICTIONS:** Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to let the floor remain dry for the full cure cycle. Dependent on actual complete system application, surface may be slippery, especially when wet or contaminated; keep surface clean and dry.

NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

We warrant that our product is manufactured to the specifications as stated her or in other publications. All other information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. **NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT.** *We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Uncured epoxy resins, polymers and their curing agents may be **ALKALINE, TOXIC or BOTH**, depending on the particular system. They may cause **ALLERGIC REACTIONS or HYPERSENSITIVITY REACTIONS. BEFORE USING** any material, **READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.***

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