

DIAMOS 420

CONVERSION VARNISH TOPCOAT

DESCRIPTION

DIAMOS 420 is a self seal conversion varnish topcoat that is fast drying with excellent durability and a smooth touch and feel. DIAMOS 420 has excellent application and sanding properties and includes UV absorbers for enhanced UV resistance and color stability. DIAMOS 420 can be used for kitchen cabinets, vanities, chairs, office and interior wood surfaces. Available in HAPS free version.



PRODUCT DATA

| | | | | |
|------------------------------------|---|---------------------------------|-------------------------------|-------------------------|
| Color | Clear | VOC less exempts | 533.25 g/L | 4.45 lb/gal |
| Solids % by Vol | 30% ± 2% | VOC actual | 574.07 g/L | 4.79 lb/gal |
| Solids % by Wt | 38% ± 2% | Photochemical reactive | No | |
| Density | 0.95 | Flash Point (PM/CC) | N/A | |
| Viscosity 23°C/73°F #4 Ford | 29-30 | Shelf life | 6 months (at 15-25°C/59-77°F) | |
| Gloss(On Black glass @60°) | 20, 35,50,90/Available in other gloss level | Theo-coverage @1 mil dry | 470-480 Sq.Ft/gal | 12-13 m ² /L |

PREPARATION/APPLICATION

| | |
|----------------------------|--|
| Working Temp | >18°C/65°F surface, coating and air |
| Catalyzation | 10 % by volume using C A73 or C A76 Catalyst - 10 parts DIAMOS 420 to 1 part C A73 or C A76. catalyst |
| Pot life | 8-12 hours (23°C/74°F) |
| Reducer | Product is normally applied without reduction. If reduction is needed to optimize application, reduce 15-25% by volume with DX 180 THINNER (Medium), DX 195 THINNER (slow). To help reduce trapped air, blushing or orange peel, use Retarder LR236 at a maximum of 5%.by volume |
| Film Thickness | Min 4 mil wet –Max 5 mil wet |
| Suggested Sealer | MAXISIL 344, VS SEALER |
| Application | <ul style="list-style-type: none"> ◆ Color Wood-Stain or tone as desired and dry thoroughly ◆ Seal- Apply a full coat of DIAMOS 420 as a sealer or MAXISIL 344 or Vs sealer at 4.0 – 5.0 wet mils. See sealer data sheet for details. ◆ Allow to dry. Sand with 240, 320 paper, or sponges as required. Topcoat within 8 hours of sanding. ◆ Topcoat – apply DIAMOS 420 at 4.0 - 5.0 mils wet ◆ For more depth or build, sand and apply an additional coat. ◆ Do not exceed 4.0 mils DFT for the total system. |
| Surface Preparation | Wood surface must be clean, dry and finish sanded with 180 grit sandpaper to ensure optimum adhesion and coating performance properties. Moisture content of the wood should be between 6%-8%. |
| Use Directions | For interior use only. Catalyze, adjust viscosity and stir thoroughly before application to avoid variations application. Dry time can be directly impacted by many factors, including film thickness. Users are urged to test the system under shop conditions. |
| App equip. | Conventional & HVLP Siphon Feed, Pressure Pot Systems and Airless/Air Assist Equipment. |
| Tinting | Can be tinted up to 10% maximum with universal colorants 844. |
| Cleanup | Clean tools/equipment immediately after use with T750 LORCHEM cleaner gun or a quality lacquer thinner or acetone. Always follow manufacturer's safety recommendations when using any solvent. |
| Standards | This product meets KCMA and CKCA standards when used as a self-seal system or over recommended LORCHEM sealers. |

DRYING TIMES

| Method | Drying temperature. | Drying Time (@ 50%RH and thickness @ 4 mil WET) | | | |
|------------|----------------------|---|---------------|----------------------|-----------|
| Air Drying | 23°C/74°F | Dust free time | 4-6 minutes | Dry to sand | 2-3 hours |
| | | Dry to touch | 20-30 minutes | Dry to recoat | 2-3 hours |
| | | Dry to Handle | 2-3 hours | Dry to stack | 24 hours |
| Force dry | 45 to 60°C/110-140°F | Minutes | | | |

Note: Dry times are greatly affected by film build, porosity of substrate, air movement as well as heat and humidity. Minimum curing temperatures of 23°C/74°F must be maintained throughout curing cycle to achieve the film integrity as stated in product features.

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APPLICATION RECOMMENDATIONS

APPLICATION EQUIPMENT SETTINGS

| Method of Application | Air Pressure (PSI) | Fluid Pressure (PSI) | TIP size (mm / inch) | Application Viscosity (#FORD 4) | Thickness Film (Mils) |
|-----------------------|--------------------|----------------------|-----------------------|---------------------------------|-----------------------|
| Conventional spray | 40-50 | 08-12 | 1.8-2/0,070-0,078 | 18-21 | 3-5 |
| Airless Spray | 10-18 | 300-600 | 0,28-0,33/0,011-0,012 | 18-21 | 3-5 |
| HVPL | 35-45 | 8-12 | 1.19-1,39/0,047-0,055 | 18-21 | 3-5 |

Note: All measurements and application equipment settings are based on application at a temperature of 23°C/74°F. Viscosity will vary depending on the temperature of the liquid. The above-mentioned application equipment recommendations are guidelines only. The noted settings are starting point recommendations and that adjustment to the settings and equipment may be needed to obtain the desired results. Please refer to your specific equipment manufacturer's recommendations for equipment set-up.

CAUTIONS

- For interior use only.
- Must be stirred before and during using.
- Must be catalyzed with C A73/C A76 catalyst at a level of 10% by volume. Over catalyzing or using incorrect catalyst may result in blooming, cracking and poor adhesion.
- C A73/C A76 is an acid. To prevent acid corrosion and pitting, do not catalyzed in an unlined metal container and all equipment should made of stainless steel.
- Store at room temperature (under 25°C/ 80° F) after catalyzation. Higher temperatures will reduce the storage life.
- Can be used over recommended LORCHEM sealer. Please contact your LORCHEM representative for system recommendations.
- Total film thickness of systems must not exceed 4.0 mils dry film because heavier films may show cracking tendency.
- Natural wood will change color by itself and clear wood finishes will not keep this from occurring. This finishing lacquer and all other nitrocellulose-based lacquers will yellow over time, with wood tone stains, this yellowing actually makes a warmer, softer appearance. Where white stains, pickled finishes, or white basecoats are used, nitrocellulose lacquers should not be used because the yellowing of the sealer and topcoat may be considered objectionable. For these applications, LORCHEM Acrylic Conversion product is recommended.

CAUTIONS

TESTING

Due to the wide variety of substrates, surface preparation methods, application methods, and environments, the customer should test the complete system for adhesion, compatibility and performance prior to full scale application.

THESE PRODUCT ARE DESIGNED FOR INDUSTRIAL SHOP APPLICATION AND PROFESSIONAL USE ONLY

Thoroughly review Safety Data Sheet (SDS) for safety information and cautions prior to using this product. Please direct any questions or comments to your local representative.

PDS

Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating, and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in customer handling ,preparation and application which are not known or under our control, LORCHEM cannot make any warranties related to the product or the performance of the product. Moreover, we underline the fact that in industrial applications, a tolerance of 5% in the overall results is considered normal and is not caused by the quality of the product.

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