

Dek-Shell



1-Part Moisture Cured Aliphatic Urethane

Gloss Finish • **6850**

Product Description

Dek-Shell 1-Part Moisture Cured Aliphatic Urethane Enamel is a high gloss, high performance industrial coating, specially formulated to provide outstanding durability and unsurpassed chemical resistance in a variety of interior and exterior commercial and industrial environments. Its special formulation provides excellent alkali, acid, solvent and salt spray resistance. It provides excellent hardness, durability, resistance to abrasion and impact abuse. It is an excellent high gloss finish can be applied direct to concrete or as a clear coat over a color chip epoxy floor system.

Recommended Substrates

- Properly prepared concrete floors
- Epoxy color chip decorative floor systems
- Showrooms, warehouses, laboratories, cafeterias or any floor requiring additional chemical and abrasion resistance.

Product Features

- Moisture cured aliphatic urethane formula
- Impact & abrasion resistant
- Good UV stability
- Solvent and chemical resistant
- Direct to properly prepared concrete

Product Limitations

- This product is for use on properly prepared floors and above grade vertical substrates.
- Do not apply if air, product & substrate temperature is <50° or >100° F.
- Expect longer dry times at lower temperatures & low relative humidity
- Clarity of color may be affected by high humidity, low temperatures, chemical exposure or exposure to lighting such as sodium vapor lights.
- A moisture barrier is required when applied on grade.
- Always test floor cleaners for ill effects before widespread use.

Application: Brush or 3/8" shed resistant roller
Flash Point: >109°F
Clean Up: Xylene

Available bases | 6850: Clear Finish

Compliance

This products is VOC compliant based on limits provided by the EPA and OTC.

Product Data

Product Type: **Moisture Cured Aliphatic Urethane**

	Finish Coat	Chip Tie Coat
Gloss @60 ° :	70+	70+

Wt Solids ±2%:	65%	65%
Vol Solids ±2%:	60%	60%
Wet Film Mils:	4.0 - 5.3	6.4 - 8.0
Dry Film Mils:	2.4 - 3.2	3.8 - 4.8
Coverage / Gal *	300 - 400	200 - 250

* coverage and wet and dry millage will vary by substrate type and porosity.

VOC gms p/L **: <329 <329

** less exempt solvents

Viscosity KU ±5: 82 82

Dry time @ 50% RH***:
 4-7 HRS to touch
 9-13 HRS to recoat
 3-5 Days full cure

*** dry times, pot life & recoat times listed may vary according to the relative humidity, temperature, film build, color and air movement of the application environment

Pot Life 3 - 5 HRS @ 70°F & 50% Relative Humidity

Recoat Window 9 - 13 HRS****

**** after 24 hours the product must be scuff sanded with 220 grit sandpaper and solvent cleaned with xylene before re-coating.

Shelf Life Six (6) months unopened containers
 3-14 days, opened, will thicken and seed

Horizontal Traffic Types:

Light Foot Traffic	Y	Vehicular Traffic	Y
Heavy Foot Traffic	Y	Forklift	Y
Steel Wheel Carts	Y	Heavy Vehicle & Equipment	Y

Return to Service Time Chart ^

@ 70°F & 50% Relative Humidity

Light Foot Traffic	24 HRS	Vehicular Traffic	5 Days
Heavy Foot Traffic	3 Days	Forklift	5 Days
Steel Wheel Carts	3 Days	Heavy Vehicle & Equipment	5 Days

*May vary by relative humidity, temperature, film build, color & air movement of the application environment.

Chemical Resistance Chart

Y = Resistant N = Not Recommended S = Splash / Spillage

Acetic Acid 5%	Y	Gasoline	Y	Sodium Hydroxide 50%	Y
Animal Urine	Y	Hydrochloric Acid 10%	Y	Sulfuric Acid 10%	Y
Bleach	Y	Isopropyl Alcohol	Y	Trisodium Phosphate	Y
Brake Fluid	S*	Methyl Ethyl Ketone	S	Xylene	Y
Calcium Chloride	Y	Motor Oil	Y		
Ethylene Glycol	Y	Nitric Acid 20%	S		

*Will stain unless promptly removed

Performance Testing Data

Abrasion Resistance ASTM D2486	CS-17, 500 cycles, 4.4 mg loss
Adhesion ASTM D3359	360 psi, 100% concrete failure
Flexibility ASTM D522, 180° bend, 1/8" mandrel	Pass
Impact Resistance Gardner, direct & reverse 100 in. lb.	Pass
Hardness	2H

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Surface Preparation:

Sweep the floor to remove all excess dirt and debris. Any grease or oil spots should be cleaned first with a degreaser type cleaner. Clean the floor a section at a time (10' x 10') with a strong detergent using a stiff broom to scrub the surface. Thoroughly rinse with a hose and allow floor to dry completely. If necessary, use a squeegee to remove any standing water.

Bare Concrete: All new concrete and masonry substrates should be at least 30 days old before painting! Test the floor for the presence of a sealer by sprinkling water onto several areas of the floor. If the water beads and does not soak in, a sealer is present and must be removed with a chemical paint stripper, a concrete floor sander, or shot blasting. All bare concrete floors should be etched with a 10% solution of Muriatic Acid. To etch the floor, use a mixture of one (1) part Muriatic Acid mixed with four (4) parts water. Be sure to wear personal protection gear (goggles, gloves, boots, etc.) and follow the manufacturer's instructions and safety precautions when working with Muriatic Acid. Working in sections (10' x 10'), apply a generous amount of the acid solution with a plastic sprinkling can, and allow the solution to effervesce until it stops reacting. Rinse the surface thoroughly with a garden hose, not allowing the acid to dry on the surface. This process should create a surface texture similar to that of 180 grit sandpaper, or the etching process must be repeated. Allow the floor to dry for at least 24 hours. Before painting, test the floor for excessive moisture by applying a 2' x 2' sheet of plastic to the floor with duct tape and allow it to set for 24 hours. If water droplets appear on the underside of the plastic, or the concrete appears wet (darker in color), the moisture content of the floor is too high and should not be painted.

Previously Painted Floors: Remove any loose, cracked or peeling paint by hand scraping, sanding, wire brushing, or by power tool cleaning. Any glossy surface areas should be sanded to dull the finish. Cracks, holes, and damaged concrete must be filled with a suitable concrete based patching material, carefully following the manufacturer's instructions. Test the adhesion of the remaining paint by cutting an X in the paint with a single edge razor blade. Apply a 5" piece of duct tape firmly over the X. Remove the tape with one quick pull. If more than 25% of the paint comes off with the tape, the old coating must be completely removed. Do not acid etch previously painted floors. Test the floor for moisture as previously outlined before painting.

Mildew - Surface areas affected by mildew should be treated with a commercial mildew removal and/or wash product carefully following manufacturer's application and safety directions. Rinse thoroughly with clean water and allow a minimum of 24 hours to dry thoroughly.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust or fumes. LEAD IS TOXIC. EXPOSURE TO LEAD DUST OR FUMES CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a properly fitted NIOSH-approved respirator and prevent skin contact to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the USEPA National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead. Follow these instructions to control exposure to other hazardous substances that may be released during surface preparation.

Directions for Use:

Mixing Instructions: This product is ready to use, DO NOT THIN. Before using, stir well, but avoid whipping air into the coating as this will cause excessive bubbles in the film.

Application: Properly prime the substrate. Apply when surface, product and ambient temperatures are above 55° F and below 100° F; and relative humidity is <85%. Avoid paint application when weather conditions are threatening, and late in the day when there is a threat of moisture condensing on wet paint. Always paint to a natural break in the surface, such as a corner or edge. Maintain a wet edge during application by brushing or rolling into previously applied coating area. Too thick of an application or application to a damp surface may cause product failure. Always apply a test patch before overcoating the primer to determine suitability and compatibility. Because the product is applied as a very thin protective coating, some environments that are dusty, may deposit dust particles on the surface that could be visibly seen.

Recoating: Always test before recoating or top-coating. Test by pressing on the coating with your thumb to verify that no fingerprint impression is left. If no impression is created, then the recoat can be started. Colder temperatures will require more cure time for the product before recoating can commence. Before recoating or top-coating, check the coating to insure no contaminants exist; such as an epoxy blush. If necessary, clean the surface prior to recoating with a standard type detergent cleaner. When recoating this product with subsequent coats of the urethane, it is advisable to apply the recoat before 24 hours passes. After 24 hours, degloss the previous coat to insure a trouble-free bond. **Clean Up:** Minor spills, painting tools and spray equipment should be immediately with MEK. More serious spills should be contained and removed with inert absorbent material. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

SAFETY:

CAUTION: Avoid prolonged contact with skin, and breathing of dust, vapors and/or spray mists. Causes eye irritation. USE WITH ADEQUATE VENTILATION! Ensure fresh air entry during application and drying. If you experience eye water, headache or dizziness, or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriately fitted respirator, (NIOSH approved), during and after application. Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes, skin and clothing. Use chemical safety glasses, goggles or a face shield for proper eye protection. Wash thoroughly after handling and before eating or smoking. Close container after each use. DO NOT TAKE INTERNALLY!

Caution! There is the potential to release lead dust if you sand scrape or remove old paint. Lead is toxic and exposure to lead dust particles can cause serious illness including brain damage especially in children. Pregnant women should avoid exposure. If adequate ventilation is not possible, wear a NIOSH approved respirator to avoid inhalation of the particles and wear clothing designed to prevent skin contact. Clean up carefully with a HEPA vacuum and a wet mop. Before starting your project, you can find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or visit their website at www.epa.gov/lead.

DO NOT TAKE INTERNALLY! FIRST AID: In case of skin contact, wash thoroughly with appropriate cleaning solvent followed by plenty of warm soapy water. For eye contact, flush with plenty of water for 15 minutes, SEEK IMMEDIATE MEDICAL ATTENTION! If affected by inhalation, move immediately to fresh air. If swallowed, DO NOT INDUCE VOMITING, SEEK IMMEDIATE MEDICAL ATTENTION!

Storage and Disposal

Product should be kept from freezing temperatures or temperatures above 95°F. Refer to your local city or county government for instructions on disposal options.

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