DURA-COAT

DURA-COAT PU400

DESCRIPTION AND RECOMMENDED USES

Dura-Coat PU400 is an odorless, cross-linked, waterborne aliphatic urethane coating, containing no volatile solvents, isocyanate, or other hazardous materials. Recommended for interior and exterior topcoat applications including, metallic structures, storage tanks, high-traffic use such as sport floors or high-traffic retail environments. It cures at room temperature, and it exhibits rapid hardness development and early water resistance. It offers a unique balance of toughness, aesthetics, and abrasion resistance. Dura-Coat PU400 topcoat comes in clear gloss and several colors. It is extremely weatherable and abrasion-resistant and will retain its appearance for long periods in a variety of environments. For use over NRX primer, Dura-Coat epoxies, or properly prepared surfaces, in areas subjected to UV. The aliphatic nature of this product offers excellent non-yellowing properties.

- Odorless, safe and non-toxic
- Contains no volatile solvents, isocyanate or other hazardous materials
- Rapid hardness development
- Fast drying; allows multiple applications in a single day Resistant to water, common household chemicals and cleaners
- Excellent adhesion to epoxy primers and acrylic coatings
- Outstanding UV resistance and gloss retention Non-staining or yellowing
- Excellent flexibility, abrasion, and scuff resistance

PACKAGES

	SIZE	REORDER #
OPTIONS	1 GL	PU400-1GL
	5 GL	PU400-5GL

PRODUCT INFORMATION

	Single component with a cross-linker additive
Packaging	5 gal 1 gal
Application	Airless spray, brush, roller, etc.
Solids Content and VOCs	32% solids by volume; zero VOC. Density: 1.28 kg/litre (10.8lb/US gal)
Coverage	A two-coat application (over primer) is required in most applications 9.2m² /l @ 1.2mils (60 microns) DFT
Shelf Life	36 months from the date of production if stored properly in original, unopened and undamaged sealed packaging
Storage Conditions	Store in sealed containers at 42–95°F (5–35°C).

TECHNICAL DATA

PROPERTY	TEST DESCRIPTION	RESULTS
Application Temperature	N/A	12°C/59°F to 30°C/86°F
Initial Set Time	@ 70°F/20°C	2 hours
Recoat Time	@ 70°F/20°C	4 hours
Normal foot traffic	@ 70°F/20°C	10-12 hours
Ultimate Cure	@ 70°F/20°C	7 days
Gloss	ASTM D523, 60°	88-90 (high gloss finish); 8-10 (matt finish)
Adhesion to Steel/Concrete	ASTM D4541	>870 psi or 6 MPa
Abrasion Resistance	ASTM D4060 (CS17, 1 kg, 1K)	<29 mg loss
Mar-Scratch Resistance	ASTM D5178	9080
Scratch Resistance	200 scrubs with a weighted abrasive pad	90 (100=no change in gloss)
Shoe Heel Resistance	Pendulum Scuff Test, 10=no scuff marks	9 (pass)
Gloss Availability	N/A	Two versions: Gloss and Matt

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APPLICATION INSTRUCTIONS

NOTE: Refer to Detailed Application and Safety Instruction Procedures. Product Training is Mandatory before applying Dura-Coat PU400.

SURFACE PREPARATION

- New concrete must be cured for a minimum of 28 days before applying Dura-Coat PU400. The substrate must be above 12°C (54°F) and must be free of all dirt, waxes, previously applied coatings, oil, grease, laitance, and any foreign matter that may interfere with the bond of the primer to the prepared substrate. Cracks and surface defects should be repaired before the application of the primer. Concrete surfaces to be coated should be mechanically cleaned to provide a clean tooth for the primer application. If acid-etching is the method of choice for the preparation of the concrete surface, the etched surface must be thoroughly flushed and dried for 24 hours before the application of the primer.
- Dura-Coat PU400 adheres very strongly to epoxy coatings of all types. The epoxy floor to receive Dura-Coat must be clean, dry and free from contaminants. Sanding with 60-80 mesh grits is recommended.
- On metallic substrate, proper surface preparation is critical to the long-term performance of this product. The exact requirements for surface preparation vary with the severity of the application, expected service life, and the initial substrate conditions. NRX primer is recommended when abrasive blasting is not possible. Optimum preparation will provide a surface thoroughly cleaned of all contaminants and roughened to an angular profile between 75-125 µm (3-5 mil). This is normally achieved by initial cleaning and degreasing and then abrasive blasting to a cleanliness of White Metal (SSPC-SP10) or Near White Metal, followed by removal of residual abrasive blast residues from the surface to be coated.

APPLICATION

- Dura-Coat PU400 may be applied with a roller, spray or brush. A spray technique offers the best performance for film consistency and appearances. Maintain uniform thickness throughout surface. Remove excess before drying.
- Air spray: suggested equipment, or equivalent: Nozzle size 1.8- 2.0 mm and atomizing air 2.8-3.2 bar.
- Airless spray: Tip orifice is 0.013 to 0.017", atomizing pressure: 2000 psi.
- Roller application: It must be noted that every contractor has his/her own technique for applying a clear coating to obtain an attractive and defect-free finish. Ideally a lint-free 9 mm nap roller is used to apply Dura-Coar PU400. On larger jobs, we recommend using a commercial 18" roller.
- Apply the coating, with a minimum pressure, in a uniform consistent pattern in a one pass application to provide an even coat. DO NOT ALLOW THE FRESH EDGE OF THE COATING TO DRY. If the coating begins to “clarify” (begins to change from milky white to clear), the coating is curing. Do not roll back into this coating at this stage, as this will create lap marks, hazing, and other differences in the cured coatings appearance. Also avoid heavy applications and puddling. Two to three coats at a coverage rate of 300-500 sq. ft./U.S. gallon is recommended depending on the porosity of the surface being coated. Allow 4 hours drying time between coats or 12-16 hours for traffic.

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