



PETRA[™]THANE RCU

advanced coating systems



HIGH PERFORMANCE ALIPHATIC POLYURETHANE FINISH COATING

GENERAL PRODUCT DESCRIPTION

PetraThane RCU (Rapid Cure Urethane) is a two component, high performance aliphatic polyurethane finish floor coating. It is 100% solids and 0-V.O.C. The absence of solvents and almost no odor allows it to be applied in occupied areas. PetraThane RCU provides a high gloss finish and is the product of choice in many applications. It is designed to be applied at 5-20 mils (DFT). For durability, stain resistance, and a finish coat which beautifies concrete for years, PetraThane RCU is simply unmatched. It is also formulated to be used with virtually all other Petra base systems meeting the highest demands.

Advantages:

- 0-VOC (100% solids)
- Rapid cure
- High Gloss Finish
- Withstands heavy traffic
- Chemical Resistant
- UV Stability
- Mar Resistant
- Low temperature cure
- Color Stability

PRODUCT DATA

Volumetric Ratio: 1 to 1
 Solids: 100%
 Coverage: 200 S/F per gal. @ 8 mils. over smooth surface
 Application Temperature: 50-90°F and 5° above dew point
 Thinning: May add 1-2 pints of acetone per gal.
 Pot Life: 10-15 minutes
 Cure Time: 1-3 hrs. (walking)
 12 hrs. (traffic) @ 75°F
 Critical recoat time: 24 hours
 Shelf life: 1 year from date of manufacture
 USDA Food and Beverage: Meets requirements for incidental contact

PACKAGING

PetraThane RCU is available in two different kit sizes:

	<u>Part A</u>	<u>Part B</u>
2 Gallon Kit	1 gallon	1 gallon
10 Gallon Kit	5 gallons	5 gallons

PHYSICAL PROPERTIES

PROPERTY	VALUE	REFERENCE
Tear Resistance DleC	270 psi	ASTM D 1004
Tensile Strength	3,980 psi	ASTM D 412
Ultimate Elongation	60%	ASTM D 412
Gloss (60 deg)	90%	ASTM D 523
Coefficient of Friction	0.6 minimum	ASTM D 2047
Porosity on unglazed finish		NACE Stand TM-01-74

INDUSTRIAL APPLICATIONS

The uniqueness and versatility of its chemistry allows PetraThane RCU to be used in a wide variety of applications:

- Manufacturing
- Commercial buildings and walkways
- Restrooms
- Pharmaceutical
- Food Preparation
- Power Plants
- Electronic Plants
- Warehouses
- Aisle ways
- Clean rooms
- Automotive showrooms and service bays
- Schools
- Cold Storage

COLORS

PetraThane RCU standard colors are: Clear, black, white, light gray, medium gray, dark gray, light beige, dark beige, sand beige, tile red, and safety yellow. Other colors are available at an additional charge.

PETRA THANE RCU

CONCRETE PREPARATION

Before the coating is applied, the concrete must be:

- Clean – Contaminants removed
- Profiled – Surface etched
- Sound – Cracks repaired

Mechanical methods are preferred for preparing concrete prior to coating application. Shot-blasting, diamond grinding, scarifying, and scabbling are all acceptable methods. The concrete profile should approximate 60-80 grit sandpaper after preparation.

MIXING

The ratio of PetraThane RCU is 1 to 1. That is, one part of A - resin, to one part of B - hardener. Generally, one mixed gallon is ideal for application. Mix the following with a drill and jiffler mixer.

1. Pre-mix part A for about 30 seconds. Pour out 1/2 gallon of part A into an empty bucket which then becomes the mixing bucket.
2. Add 1/2 gallon of part B and mix for 1 minute until homogeneous. Be careful to scrape sides of bucket to insure that no unmixed material remains.
3. Unlike epoxies, do not pour out on floor. Urethanes are best applied by the dip and roll method.

APPLICATION PROCESS

PetraThane RCU is generally applied in once as the final top-coat. For estimation purposes, use coverage rates of 300 S/F per gallon for light textured finishes and 400 S/F per gallon over a smooth surface. Refer to other Petra data sheets for application of base systems that the PetraThane RCU will be applied over. As a general rule polyurethanes should not be applied directly to concrete. Use an epoxy primer for best adhesion.

1. It is always best to apply in descending temperatures especially for exterior applications. Optimum ambient temperature should be between 50-90°F and 5° above the dew point during application.
2. Mix one gallon of resin using above mixing instructions.
3. Only if needed, thin material by adding 1 pint of acetone per gallon of PetraThane RCU.
4. Apply PetraThane RCU with a 3/8" non-shedding phenolic (plastic) core roller cover. Dip a 9" or 18" roller on a pole into the mixed material. Roll the PetraThane RCU forward and backwards. Do not over roll which causes the material to tack up.
5. PetraThane RCU cures quickly so you need to move fast and keep a wet edge. Pot life is limited so keep mixed volumes small until you become comfortable with the material.

PRODUCT LIMITATION

Ground level concrete slabs emit moisture vapor. The allowable moisture emissions for concrete is 3 lbs. 1000 S/F over a twenty-four hour period. If moisture is above this level, then blistering and delamination of coating may occur. A calcium chloride test should be performed to determine concrete moisture level. If moisture levels exceed the 3 lb. limit, a concrete moisture vapor control system should be used first before applying coating system. Please contact Petra technical department for approved systems.

Coating systems are susceptible to cracking if the concrete moves or separates below the coating. Hence, joint and crack treatment should be reviewed prior to coating application. As a general rule, control joints (saw cuts) and random cracks should be saw cut or chased first then filled with Petra Patch or similar approved hard epoxy product. Construction joints (two slabs which meet and hence move) should be treated. After the coating has been applied and cured, saw cut through the coating over construction joints.

CLEANUP

PetraThane RCU while in an unreacted state may be cleaned up with acetone.

WARRANTY

Petra Polymers products are warranted for one year after date of application. Please refer to the Petra Polymer's Limited Material Warranty for additional clarification.

SAFETY

Consult PetraThane RCU material safety data sheet. Avoid PetraThane RCU contact with eyes and skin. Some individuals may be allergic to epoxy. Protective gloves and clothing are recommended.



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