

URACHEM

GENERAL INFORMATION	PHYSICAL PROPERTIES	APPLICATION
<p>A two component polyurethane enamel suitable for use on a variety of substrates that require superior appearance and durability. <i>Urachem</i> has excellent solvent resistance and chemical resistance. <i>Urachem</i> is recommended for both metal and plastic substrates used in the electronic enclosure and medical and office equipment manufacturing industries. <i>Urachem</i> is designed to dry and cure at ambient temperature so it is an excellent choice for pre-assembled parts that are too large for baking ovens or for parts that cannot tolerate the heat. <i>Urachem</i> will cure at ambient temperature or by force drying 20 – 30 minutes at 125° - 180°F.</p> <p><i>Urachem</i> can be textured or applied as a smooth coat.</p> <p><i>Urachem</i> is custom color matched and formulated to meet each customer's specifications.</p> <p>Randolph Products Co. warrants that its products meet its internal specifications and are of merchantable quality. However, the purchaser is solely responsible for the suitability of the product for any particular application. The purchaser should thoroughly test or qualify the product for serviceability, environmental compliance and health and safety factors prior to use. Further, our total liability is limited to the price of the product or replacement in kind.</p> <p>Randolph Products Company 33 Haynes Circle Chicopee, MA 01020 Phone: 413-592-4191 Fax: 413-594-7321 www.randolphproducts.com</p>	<p>Physical and chemical tests were performed on iron phosphate treated steel panels. All panels were cured for 72 hours at 140°F and then air dried for 14 days. Adhesion tests were performed on the appropriate substrates.</p> <ol style="list-style-type: none"> 1. Volume Solids: 40 – 45% (varies by color) 2. Pencil Hardness: 2H 3. Cross Hatch Adhesion: 5B 4. Taber Abrasion (1000 grams; 1000 cycles; CS10 wheel): < 100 mg loss 5. Flexibility: Pass 1/8" Mandrel 6. Theoretical Coverage @ 1 mil dft: 641 - 721 ft²/gallon (varies by color) 7. Direct Impact: 100 inch lbs. 8. Reverse Impact: 80 inch lbs 9. Humidity Exposure: 250 hours with no blistering 10. Pot Life: 4 hours 11. Salt Spray Exposure: 100 hours no blistering 12. Solvent Resistance: 50 double rubs – "No effect" is defined as no permanent softening of film and/or permanent change in appearance. 	<p>Use conventional air pressurized spray equipment or HVLP.</p> <p>Surface Preparation: <i>Urachem</i> can be applied directly to chemically treated steel. Use W6583 WB Wash Primer on Yellow/Clear Zinc Plate or any chromated aluminum if aged longer than 24 hours. Wash Primer 2035-534 or R1953 Tu-Com Chromate Primer must be applied if no chemical pretreatment is available. Structural plastics such as ABS (CYCOLAC™), Polycarbonate (LEXAN™) and PPO (NORYL™) that have been injected, foamed, or thermoformed should be clean and free from mold release. Wash with isopropyl alcohol or other mild wash solution.</p> <p>Mixing: <i>Urachem</i> is a two component polyurethane. <i>Urachem R500</i> is the recommended hardener for interior use only. <i>Urachem R1100</i> is the recommended hardener for exterior use (Note ratio change when using <i>Urachem R1100</i> – see below).</p> <p>Mix Ratio:</p> <p>Interior Application: 6 parts <i>Urachem</i> Part A; 1 part <i>Urachem R500</i> hardener; 3 parts W283 Reducer</p> <p>Exterior Application: 4 parts <i>Urachem</i> Part A; 1 part <i>Urachem R1100</i> hardener; 2 parts W283 Reducer</p> <p>Base Coat: Apply smooth wet coat approximately 3.0 mils wet. Allow 15 – 20 minutes flash off prior to texture coat or force drying.</p> <p>Texture Coat: Use same admixed paint for texture. Adjust pressures accordingly to match texture pattern. Allow 15 – 20 minutes flash off before force drying.</p> <p>Pressure:</p>

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Isopropyl Alcohol: No effect
Lacquer Thinner (T4-1): No effect
MEK: No effect
Skydrol: No effect

13. Chemical Resistance: 30 minutes uncovered exposure spot test.

409 Cleaner: No effect
Fantastic: No effect
Household Ammonia: No effect
10% NaOH: No effect
10% HCl: Slight staining
5% Acetic Acid: Slight staining
Ketchup: Slight staining
Mustard: Slight staining
Coffee: No effect
Windex: No effect
Hospital Antiseptic Cleaners: No effect

14. VOC (as applied): 5.1 lbs/gallon

15. Shelf Life: One Year

Base Coat:

Fluid pressure 8 – 15 psi
Atomizing pressure 45 -55 psi

Texture Coat:

Fluid pressure 8 – 15 psi
Atomizing pressure 10 – 20 psi

Pressures will vary according to spray equipment and part configuration.

Drying Times:

Flash off prior to texture coat or force dry for 15 – 20 minutes.
Dry to handle: Overnight or 20 minutes at 150°F.
Dry to package or secondary operation: Overnight or 40 minutes at 150°F – always allow parts to cool prior to secondary processing.

Do not pack in plastic bags.

Clean Up: Use lacquer thinner or #928 Washing Thinner.

Safety Precautions:

This product is intended for professional use in an industrial environment only. Consult the Material Safety Data Sheet prior to application.