Eastern Chem Lac
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CONDUCTIVE URACHEM

GENERAL INFORMATION

A two component polyurethane enamel suitable for use on a variety of substrates that require superior appearance and durability. *Conductive Urachem* has excellent solvent resistance and chemical resistance. *Conductive Urachem* is recommended for both metal and plastic substrates used in the electronic enclosure and medical and office equipment manufacturing industries. *Conductive Urachem* 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.
Conductive Urachem will cure at ambient temperature or by force drying 20 – 30 minutes at 125° - 180°F.

Conductive Urachem can be textured or applied as a smooth coat.

Conductive Urachem is custom color matched and formulated to meet each customer's specifications.

Eastern Chem Lac 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.

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PHYSICAL PROPERTIES

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.

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 ft^2/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.

APPLICATION

Use conventional air pressurized spray equipment or HVLP.

Surface Preparation:
Conductive Urachem 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 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.

Mixing:
Conductive Urachem is a two component polyurethane. *Urachem R500* is the recommended hardener for interior use only. *Urachem R1100* is the recommended hardener for exterior use (Note ratio change when using Urachem R1100 – see below).

Mix Ratio:

Interior Application:
6 parts Conductive Urachem Part A; **1 part** Urachem R500 hardener; **3 parts** W283 Reducer

Exterior Application:
4 parts Conductive Urachem Part A; **1 part** Urachem R1100 hardener; **2 parts** W283 Reducer

Base Coat: Apply smooth wet coat approximately 3.0 mils wet. Allow 15 – 20 minutes flash off prior to texture coat or force drying.

Texture Coat: Use same admixed paint for texture. Adjust pressures accordingly

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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. Surface Conductivity:
$<10^9$

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

16. Shelf Life: One Year

to match texture pattern. Allow 15 – 20 minutes flash off before force drying.
Pressure:

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 Safety Data Sheet prior to application.