

AN OVERVIEW ON ENCAPSULANTS

What is an Encapsulant?

- Coatings applied in liquid or cementitious form that seals lead paint
- Conventional paint is not an encapsulant
- NOT regular latex/oil-based paint
- Less expensive than other methods of abatement

Approved Encapsulants in CT

- All encapsulants used for abatement in CT are listed on the DPH Encapsulant Registry
- Each encapsulant must be tested by a third party lab to ensure that it meets CT's standards

Registry of Encapsulants

- LeadLock
 - Interior/exterior
- L-B-C Lead Barrier Compound Type III
 - Interior and exterior
- Plaster-in-A-Roll (cementitious)
 - Interior only

Registry of Encapsulants

- Faster Plaster Wall Liner (cementitious)
 - Interior only
- SE-110 Penetrating Stabilizer*
 - Interior/exterior
- SE-120 Protective-Skin*
 - Interior/exterior

*Note: Both must be used together

Important

- In order for an encapsulant to be used in CT for an abatement project, it must be approved by DPH
- Paint supply stores and home improvement stores do sell other unapproved brands of encapsulants
- Some brands of encapsulants are approved by HUD, but not by CT DPH

Encapsulant Product Fact Sheet

State of Connecticut - Department of Public Health
LEAD AND HEAVY METALS PROGRAM
REGISTRY OF AUTHORIZED ENCAPSULANT PRODUCTS

Encapsulants are coatings applied to liquid or cementitious forms that are made to be long lasting barriers over lead paint. Connecticut public is not an encapsulant. Only the products listed on this Registry are authorized for use in Connecticut. Encapsulant use is prohibited on fireplaces, window sashes, window panes, window blinds, window cords, window weights, door joints, door edges, or friction surfaces. Follow manufacturer's instructions/recommendations for product use. Please refer to the Encapsulant Product Fact Sheet and manufacturer's literature for more detailed information on each product. Authorizations followed by an asterisk (*) are valid for a one year period from the authorization date indicated.

Product Name	Manufacturer	Use Listed for Use on These Surfaces	Finished Product Thickness	Respiratory Protection Required	Occupancy During Application	Interior Use	Authorization Date
LE-10 Lead Shield (Epoxy/Lead)	Levco 155 Danbury Road Danbury, NH 03824 (800) 842-9750	Interior surfaces, exterior surfaces, surfaces with paint, masonry, and other surfaces.	3 mils	Respiratory protection required.	Occupancy is permitted during application.	Interior Use	07/2/2005
Plaster or Stucco Repair (Integral Additive)	Levco 155 Danbury Road Danbury, NH 03824 (800) 842-9750	Not for use on interior surfaces, exterior surfaces, and other surfaces.	35 mils	Respiratory protection required.	Occupancy is not permitted during application.	Interior Use	06/16/06

Encapsulant Product Fact Sheet

- Name of Product
- Production Description
 - Type
 - Finish
 - Tintable
 - Mixable with another product
 - Dilutable
 - Size
 - Disposal
 - Application equipment
 - VOC

Encapsulant Product Fact Sheet

- Production Description
 - Mixing
 - Colors
 - Paintable
 - Dry time
 - Full cure
 - Type of cure
 - Flash point
 - Clean-up

Encapsulant Product Fact Sheet

- Application to Achieve Required Dry Product Thickness
 - Example 7 MILs:
 - Brush or Roller – 2 coats
 - Airless Spray – 1 coat

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Encapsulant Product Fact Sheet

- Recommended Uses:
 - Walls – walls, chair rails, baseboards
 - Ceilings
 - **Non-impact** door components – door, jambs, heads, casing
 - **Non-impact** window components – sills, aprons, casing, mullions, heads
 - **Non-impact** stair components – railing caps, handrails, balusters, newel posts, stringers

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Encapsulant Product Fact Sheet

- Uses Not Recommended:
 - Working radiators where temperatures exceed 240 degrees Fahrenheit
- Prohibited Uses:
 - Friction surfaces, impact surfaces, surfaces with calcimine paint, thresholds, window parting beads, window wells, window sashes, friction and impact surfaces of cabinets and drawers or any exterior surface, surface with uncorrected moisture damage

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Prohibited Use

- Not suitable for the following:
 - Friction and impact surfaces
 - Thresholds
 - Window sashes
 - Window parting beads
 - Window stops
 - Window wells
 - Door jambs
 - Door edges
 - Surfaces with uncorrected moisture damage
 - Surfaces coated with calcimine paint (used as a coating on plaster walls, zinc additives)
 - Surfaces that fail x-cut or patch test

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Encapsulant Product Fact Sheet

- Surface preparation
- Encapsulant application
- Occupancy during/after application
- Cautions
- Warrant
- Care/maintenance

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Assessing Surfaces

- An x-cut and patch test must be conducted by:
 - A trained code enforcement official
 - A certified lead inspector
 - A certified lead inspector/risk assessor
 - A certified lead abatement supervisor
 - A property owner/agent

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Important Reminders:

- X-cut test
- Patch test
- Appropriate thickness of product

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X-CUT TEST

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Step 1: X-cut test

- What is an x-cut test?
 - A single, but invasive test that provides evidence of adhesion of the visible layers of paint

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X-cut test

- Must be performed on a representative component
 - A representative component is a component that is selected for testing from a group of architectural systems that share a common painting history and appears to be in the worst condition
- Surface must be cleaned and free of deteriorated paint before test is performed

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X-cut test

- Surface must be clean and dry
- Holding a utility knife, make two straight cuts in the paint down to the substrate (cuts should be 2" long and form an X)
- Take a 3" piece of tape and place the center of the tape at the intersection of the cuts
- Smooth the tape over the "X" and rub firmly with a pencil eraser
- After 90 seconds remove the tape by pulling straight down with a quick smooth motion

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X-cut test

- Inspect the X-cut area and the tape for any removal of paint:
 - 0 = no paint removed (PASS)
 - 1 = removal of less than 1/16" (PASS)
 - 2 = removal of greater than 1/16" (FAIL)
- Record X-cut tape test results
- Wet clean any dust/paint chips that have been created
- If the test fails, do not proceed to step 2

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PATCH TEST

Step 2: Patch test

- What is a patch test?
 - A test that evaluates the effectiveness of a liquid encapsulant on a small area of the painted surface before final selection and widespread application

Patch test

- Should be performed in each room on a representative component of each architectural system
- The cure time is different for each encapsulant product so consult each product fact sheet for the cure time

Patch test

- Clean the surface before perform the patch test
 - Surfaces must be clean, deglossed and free of deteriorating paint
- Size and shape of patch tests
 - For liquid encapsulants on a large surface
 - 6" x 6" patch
 - For liquid encapsulants on a narrow surface
 - Same total area should be tested, e.g. 4" x 9"

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Patch test

- Visually examine the patch for defects
- If more than 10% of the patch has visual defects, it fails – do not continue
- Holding the utility knife, make two straight cuts in the paint down to the substrate (cuts should be 2" long and form an X)
- Take a 3" piece of tape and place the center of the tape at the intersection of the cuts

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Patch test

- Smooth the tape over the "X" and rub firmly with a pencil eraser
- After 90 seconds remove the tape by pulling straight down with a quick smooth motion
- Inspect the X-cut area and the tape for any removal of paint:
 - 0 = no paint removed (PASS)
 - 1 = removal of less than 1/16" (PASS)
 - 2 = removal of greater than 1/16" (FAIL)
- Record X-cut tape test results
- Wet clean any dust/paint chips that have been created

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X-cut and Patch tests

X-cut and patch test results must be documented and submitted to LHD for review

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APPLICATION TO ACHIEVE REQUIRED DRY PRODUCT THICKNESS

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Encapsulant Products

State of Connecticut - Department of Public Health
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Product Name	Manufacturer	Not Listed Use on This Surface	Finished Product Thickness	Inventory Location	Occupancy During Application	Interior Use	Authorization Date
LeadLock™ Epoxy of Your Last Coat™ (Epoxy)	Global Encapsulants, Inc. 701 E. Santa Clara St. Yorba Linda, CA 95675 (800) 269-2982	Friction surfaces, chalking or surfaces that be properly prepared.	7 mils - exterior 16 mils - exterior	For full application see Manual, 24 and 26th Edition. Regional POC: 207 or Equivalents.	No - During dry of being application. No - In work area if breath or roller used. Occupancy permitted in other areas if breath or roller used and adequate ventilation is provided for 24 hours after application.	Interior YES Exterior YES	04/17/04 Original 11/20/11 revision to MS#82696

http://www.ct.gov/dph/lib/dph/environmental_health/lead/pdf/english_registry_11-22-11.pdf

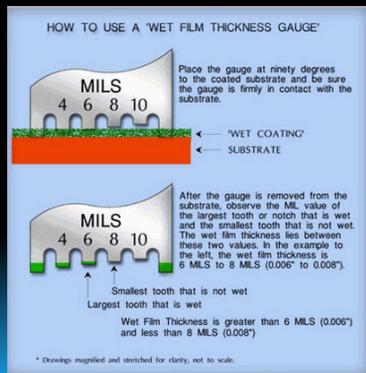
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Finished Product Thickness

- Each product has a finished product thickness
- Appropriate thickness helps to ensure the effectiveness of the encapsulant
- Use a wet mil gauge to control thickness

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Wet Mil Gauge



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