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Marshall Laboratory
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MEMORANDUM REPORT NO. M-493

NOT FOR CIRCULATION

INSPECTION OF 603-901
COLONIAL RED HOUSE PAINT APPLICATIONS
IN PROVIDENCE, R. I. AND NEW BEDFORD, MASS. AREAS

This report covers inspection on July 17 and 18, 1952 of 5 houses in the Providence, R. I. area and 6 houses in the New Bedford, Mass. area which had been painted with 603-901 Colonial Red House Paint.

Summary and Conclusion:

While blistering was observed on some of the houses inspected, the degree of blistering and occurrence was no worse than would have been expected with an orthodox type house paint. With one exception all blistering occurred over surfaces which had previously blistered.

The limited results observed indicate that use of an alkyd resin vehicle for house paint body colors does not entail any greater risk of moisture blistering than use of an orthodox vehicle.

Details:

1. House of Mr. Gordon Hazelwood
132 Wynnmore Way
Warwick, R.I.
Pictures #0 and #1 on Film Roll #954.

This is a 10 year old clapboard house which had previously been painted with a barn type red. One coat of 603-901 was applied in the summer of 1950 with no primer and only normal surface preparation of wire brushing and scraping. Color and gloss retention was good. There were a few scattered small blisters on the south side of the house, none on either of the other exposures. These blisters appeared a few days after the house was painted. The blisters

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went down to the previous coat of paint and can probably be attributed to solvent type blistering rather than moisture blistering. The house was insulated in the side walls and the inside wall surfaces were covered with ~~var~~ wallpaper with the exception of kitchen and bath which were painted.

2. House of Mr. George Hawkins
223 First Avenue
E. Greenwich, R.I.
Pictures #3 and #4 on Film Roll #954

This is a 24 year old cedar shingle house which had been painted with a brown house paint 5 or 6 years prior to the application of the Colonial Red. One coat was applied in the summer of 1950 with no primer and only a minimum of wire brushing in small areas. Color and gloss retention are good except for south exposure where very porous dry shingles caused low initial gloss and resulted in poor color and gloss retention. There was no blistering or other film failure evident at this time. The house is not insulated and the inside walls are papered except for painted walls in the kitchen and bath.

3. House of Mr. Elmer Johnson
45 Overbrook Lane
East Greenwich, R.I.
Pictures #4, #5, #6 on Film Roll #954

This is a new house with cedar shingle siding. One coat of house paint white primer tinted pink with Colonial Red was applied in summer of 1950. One coat of Colonial Red was applied in summer of 1951. The general appearance of the house was very good. The south exposure had lost more gloss and had faded more than the other exposures. No film failure was observed. The interior walls were papered except for the kitchen, bath, and one bedroom in rear of house.

4. House of Unidentified Owner
45 Duane Street
E. Greenwich, R.I.
Pictures #7 and #8 on Film Roll #954

This is a cedar shingle house the second floor of which was painted with one coat of Colonial Red in the summer of 1950. No primer was applied. No blistering or film failure was observed. The first floor received one coat of du Pont House Paint Solar Yellow and shows scattered blistering. The inside walls were papered.

5. House of Miss Sullivan
223 Massachusetts Avenue
Providence, R.I.
Pictures #9, #10, #11, #12 on Film Roll #954

This is a two story house the first floor of which is

clapboard siding and the second floor of which is novelty wood shingle siding. The house was painted with one coat of Colonial Red in the summer of 1950. The previous painting was a cream house paint which had blistered and peeled considerably. Some blistering was noticed beneath windows on the south and west sides of the house. General appearance of the Colonial Red was very good. Gloss and color retention on the south side of the house was slightly inferior to that on other exposures. The house was not insulated and the inside walls are papered except the kitchen and bath. Cream House Paint on trim is peeling from cracks in window frames. The east side of the garage appeared to have been wire brushed and scraped very well before painting and the Colonial Red shows good adhesion. The north side was not wire brushed or scraped and Colonial Red is peeling and flaking badly.

6. House of Mr. Hopper
Corner Echo and Washington Road
Barrington, R.I.
Pictures #13, #14 and #16 on Film Roll #954

This is a cedar shingle house built in spring and summer of 1949. It was originally painted with a coat of white house paint primer, and one coat of competitive barn and roof red. It was given one coat of Colonial Red in late fall of 1950. The color and gloss retention is very good and there was no blistering or other film failure. Walls are insulated and the inside wall surfaces were originally papered but several rooms were later painted.

7. House of Mr. William Davis
76 Hillman Street
New Bedford, Mass.
Pictures #25, #26, #27, #29, #30, #31 on Film Roll #954

This is a clapboard house the last previous painting having been a deep gray house paint applied approximately 20 years before. There had been considered previous blistering and peeling and some wood damage. The damaged wood was replaced with new clapboard siding in some locations as shown in pictures 27, 29, 30 and 31. The old painted surface was in poor condition and it was wire brushed, scraped and sanded. Two coats of Colonial Red house paint were applied, (the first coat in summer 1949 and the second coat in summer 1950). Color and gloss retention is very good on east, north and west sides and only fair on the south side. There was extensive blistering on old wooden surfaces but none over the new wood. There is no insulation in the house and the inside walls were papered.

8. House of Mr. Greenwood
264 Reed Street
New Bedford, Mass.
Pictures #19 and #20 on Film Roll #954

This house has shingle siding applied over old clapboard.

The shingles were applied in 1934 and they were not painted prior to the painting with two coats of Colonial Red during the spring and summer of 1951. Color and gloss retention is good. No blistering of the Colonial Red was observed although the white house paint on the doors and window sills was blistered to some extent. The inside walls are papered with the exception of the kitchen and bath. There is no insulation.

9. House of Unidentified Owner

97 State Street

New Bedford, Mass.

Pictures #21, #22, #23, and #24 on Film Roll #954

This is a 50 year old clapboard house previously painted with cream house paint an estimated 8-10 years prior to present painting. The previous coat and coats previous to it had cracked, blistered and peeled. The surface was wire brushed and scraped. The bare spots were spot primed with ordinary house paint. One coat of Colonial Red was applied in the summer of 1951. Color and gloss retention was good. There were some small blisters in localized areas under windows. Window frames and sills painted with orthodox house paint has some small blisters. The condition of the topcoat was judged to be good considering the extensive failure of previous coats. The house is insulated throughout and the inside wall surfaces are papered.

10. St. Joseph's School

Rotch and Spring Streets

Fairhaven, Mass.

Pictures #34 and #34 on Film Roll #954

This is a clapboard building previously painted with a gray house paint. The condition of the surface was poor and the building was wire brushed and caulked prior to painting. One coat of Colonial Red was applied in November 1951. Color and gloss retention is good. Small blisters were noted in several localized spots where water could have gotten into the wood. The south wall is the only wall insulated and the inside of the walls were painted.

This job was applied during very cold weather and some painting may have been done over damp surfaces.

11. House of Unidentified Owner

Cleveland Avenue

Buzzards Bay, Mass.

This is a summer cottage built of clapboard. The house is unoccupied and unheated during the winter months. It is only 100 yards from the bay. One coat of a gray primer was applied followed by one coat of Colonial Red in the spring of 1951. Color and gloss retention is good. No blistering or film failure was noted. The house is not insulated and the inside walls are paneled with wood.

MARSHALL LABORATORY

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