

QUARTERLY RESEARCH REPORT
PAINT, VARNISH & LACQUER LABORATORIES
THE GLIDDEN COMPANY
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RESEARCH
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TRADE PRODUCTS
RESEARCH REPORT
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SPRED GLIDE-ON AND OTHER EXTERIOR PAINTS (including Endurance Paints)

We have reached a point in our research work on exterior finishes of all types where some fundamental studies on adhesion and blister resistance are supplying us with very valuable information. Mr. Gilchrist has completed the design and construction of a new type blister cabinet which has produced superlative results as far as reproduction from panel to panel, as well as making the failures more severe and more in line with our actual house type failures than we have ever had with our previous equipment. The machine is capable of accepting twelve panels per run and it takes from one to two weeks to complete a given series. From the three series completed to date we have been able to verify a number of conclusions and to postulate new theories.

Based on current products, our Exterior Base Coat, followed by coats of either Endurance or Imperial run amongst the best recommendations possible for new wood. Two coats of Exterior Base Coat are very poor for blister resistance. In no case does a blister resistant type of paint look good over a heavy film of Base Coat, unless it is of the exceedingly porous type flat house paint. The same identical rule applies to the use of latex or water thinned products as primers beneath oil paints. Two coats of the high vehicle content blister resistant paints can fail very quickly, while the flats look very good.

Our greatest surprise has come in the number of intercoat blisters where our Exterior Base Coat Primer will remain intact while the finish coat blisters. As our correlation advances we hope to be able to expedite our conclusions through the use of this new equipment.

Our greatest problem, as explained several times before, is centered about the inability to reproduce on exposure panels and particularly in accelerated weathering equipment, the types of failures encountered in field work. We are doing everything within our power to vary our exposure conditions so as to reproduce these failures. As yet there is no correlation.

In the oil paint field, the development of the emulsion paints with their lower sheen and better color retention on masonry surfaces are forcing a great deal of interest in new house paints. At present these new house paints must be flat in sheen, uniform in color, available in a wider range of color than heretofore, and lower in cost. One of the prime purposes of these new paints will be to eliminate blistering of house paints.

There are entirely separate problems involved in gaining blister resistance over bare wood and doing the same thing over previously painted surfaces. Also involved intimately in this same problem is the subject of intercoat adhesion. To date all of the existing formulations have some major faults. The dead flat oil paint types lack color uniformity in shades and show a great deal of mildew growth because of the absence of zinc. Chemical fungicides are not sufficiently effective over periods more than two years to keep mildew growth at a satisfactory low level. It is claimed that the presence of zinc or lead creates the blistering tendencies.

The effect of the new alkyd reinforced types present many new problems. Whether the over all problem can best be solved through our emulsion efforts or whether they will be solved through the developments of our Endurance line remains to be

seen. We are keeping our staff active on both phases. We are trying our best not to overlook any possibility in the solution of the blistering problems and maintaining leadership in the highly competitive race for new products.

SPRED SATIN

The influx of new latexes designed for exterior exposure have created many new opportunities in the Satin field. All of the various latexes have been screened for desirable properties and it appears that favorable improvements and water resistance of our films can be made. It may mean some major changes in our raw materials that are now used in Spred Satin. We will try to keep everyone advised of interesting developments along this line.

DRAMATONE

As our stocks of Dramatone get older we are being faced with more of the difficulties that we had anticipated when we entered this field. Some settling and poor color dispersion is being encountered, an occasional leaky tube is still found in spite of the recent change in packages. We are doing everything possible to arrive at improved formulations as well as examining outside materials for the same purpose.

SPRED TEXTURE

After several years of effort the Sales Department are quite confident that we have a new and satisfactory texture material for sale to the low cost building industry. This product has recently been added to the line after extensive field testing.

SPRAY CONTAINERS

We have devoted quite a little time to the evaluation of various spraying types of finishes from spray containers. We are trying to conclude our testing so that a decision between a lacquer type and an enamel type may be made and as to particularly which type of container and packaging company we shall employ. The lacquers offer quick set and better application control at the sacrifice of hiding, fire hazard and odor level. Our own Japalac enamel is now rated as the best of the enamels with outstanding hiding, flow and good gloss as its major advantages. Its major disadvantage is the higher amount of over-spray and slower dry.

GLID IRON

Our sales people are interested in the dramatic possibilities of Glid Iron for maintenance of masonry floors and wall coatings. As a result we are assigning personnel to become specialists in this field and they have recently been given thorough indoctrination by our Nubian laboratories where all the original research work has been done. We are continuing to work very closely with the Nubian Division in this problem so that a profitable interchange of information can be accomplished.

F. C. Retzog

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