

THE RUBEROID CO.
RESEARCH LABORATORY
SOUTH BOUND BROOK, N. J.

September 23, 1965

TO: MR. T. A. DENT - NEW YORK

CC: Messrs. Van Akin - Sweeney - O'Leary - Bettoli - Neil -
Limerick - Lyons - Kuhlken - Talbot - Crippen

RE: RESEARCH PROGRESS REPORT BUILDING AND INDUSTRIAL
PRODUCTS DIVISION - JULY & AUGUST 1965

A. MINERAL FIBER PRODUCTS

1. Low Density Siding

The first large scale run of Low Density Siding was made on September 10. Two hundred squares were produced and while texture roll experiments produced very high rejects (over 50%), knowledge gained assures that future runs will have acceptable texture. Representative finished product is available for field application.

An eight-hour, 400-500 square run, is scheduled for September 30 and will provide opportunity for further study and improvement of wet machine, trimming and drying rates.

2. Stonewall

Preliminary investigation of stonewall board surfaced with #9 granules embedded in epoxy is in progress. We are also starting to develop background on the various adhesives available for laminating stonewall to polystyrene foam, as used in the construction of sandwich panels.

3. General

Kynar 500, which is a fluorocarbon (Tedlar-type) paint available from Pennsalt (through Sherwin-Williams) is being evaluated on Mineral Fiber products.

B. ASPHALT PRODUCTS

1. Self-Sealing Shingles

An initial investigation of shingles packaged without filler pads is completed and encouraging. Further checks are planned; and will include the step of elimination of pads at one or more plants. Savings of about 3¢ per square will be realized.

MICH08464

A number of plants received kraft wrappers from St. Regis having poor quality quilon treatment in the antistick area of the wrapper and the laboratory spent considerable time in helping to identify and resolve the problem.

2. Fishmouthing

Working with Research specifications, Engineering has completed an ERA for the application of a thin film of unstabilized asphalt as a primary sealback. In view of the \$10,000 expenditure involved for equipment at Millis, this ERA is being held by Mr. Van Akin pending analysis of alternatives.

3. Class "A"

Preliminaries have been completed and Research will obtain Class "A" variations, during the next run, wherein the glass mat is replaced by increased amounts of asbestos and the substitution of a thermosetting resin. Immediate testing at Underwriters' has been arranged and the results will provide guidance on equipment design for the next Class "A" installation.

4. B.U.R. Systems

100 squares of 40 lb. coated felt were produced at Millis (on a batch basis) using 25% #160 Mica stabilizer in the coating. The material ran well and will be installed on a test roof. Weather-o-meter exposures started several months ago are now beginning to demonstrate the expected superiority of 25% Mica over 50% rock dust. Expansion of this program now requires roofing machine modification to provide pilot capability.

5. General

a) Flux

Current shipments of Humble's recently approved La Rosa flux are causing capacity problems at Baltimore due to 5 hour vs. 4 hour blowing time. Millis reports low penetration values with Shell flux (which they blend with Humble, 50-50). We are working with the suppliers and the plants on both of these problems.

b) Fibers

5 tons of Vermont 7R Forano processed fiber were used successfully at Baltimore in paints and plastics and conversion to Vermont fiber at

Baltimore has been recommended. The initial car will be followed and if no problems develop, conversion of the other plants to this fiber will be possible.

c) Product Analysis

Analysis of lower cost competitive paints and plastics is in progress. IKO shingles as manufactured in Canada were below U.L. and Federal Specs in percent saturation and felt weight. Bound Brook, Tilo and Fairmount stabilizers were evaluated for the Granule Division. Congo asphalt saturated flooring felt, as supplied in Denver, was compared to a possible Denver product. Polystyrene foam, polyvinyl chloride foam and urethane foam, all from different suppliers, were evaluated and rejected for BUR application.

d) Fungicides

Year-old exposures were recalled from Mobile and found to retain some fungicidal activity. Test runs at Mobile are planned.

C. CALSILITE

1. Chloride Cracking

We are advised that our inhibited Calsilite has passed du Pont's chloride cracking test. Manufacturing procedures are being set-up and it is expected that full commercial production can begin by October 15.

2. Block rejects continue to average 10% vs. the 5% standard, due primarily to delamination. Occurance is not continuous or uniform from batch to batch, or press to press, and suggests that improvement, at least in part, lies in better operating control.

J-M Celite was evaluated in the lab and the results were good enough to warrant a plant run.

D. FLOORING

1. Organic

The B-9 run, made in August was the most successful to date, and provided a reasonable basis for proceeding with the semi-commercial installation. The product produced was observed to run well in the Sandura operation. A final evaluation of the product has not yet been received. In the interim, laboratory investigations of binder systems and process modifications continue. B-9 material is also under evaluation by Mannington.

MICH08466

2. Asbestos

Laboratory study of freeness characteristics and SBR binder systems continues and will provide a basis for future development machine runs. A semi-commercial 10 Ton run will be made for Sandura on September 30.

E. ASBESTOS PAPER & MILLBOARD

1. McCord

McCord completed their evaluation of a 3 ton test run and has ordered 37 tons of the bituminous binder gasket.

2. Thermoid

Additional samples of the brake-lining material made several months ago have been sent to Thermoid so they can complete their evaluation.

3. Garlock

The initial run of millboard made with blue asbestos and butyl latex was unsuccessful due to floating stock and sticking to the felt. Lab work is underway prior to another machine run.

F. T/NA PRODUCTS

Equipment has been installed at High Vacuum to permit lamination with the improved (RF-3) adhesive. Initial runs were successful and future runs of T/NA 200 will use the new process. MD shrinkage with the new process has been reduced from 0.25% to 0.10%.

The neoprene content in the T/NA felt has been reduced from 22% to 19% in order to improve adhesion of the felt to mopping asphalt. This step should improve the ability of the asphalt to restrain the membrane and thereby further reduce shrinkage of the membrane.

D. A. DAVIS

:JMR

MICH08467