

MONTHLY HIGHLIGHT REPORT - SEPTEMBER 1968

SECRET - COMPANY CONFIDENTIAL

RESEARCH & DEVELOPMENT DEPARTMENT

BUILDING PRODUCTS DIVISION

A. Mineral Fiber Products

1. Ruco Thatch

Research assisted Manufacturing in producing 180 squares of Buckskin Ruco Clapboard for sale in the Millis, Massachusetts, district where narrow exposure is preferred. This material is 8 3/4" x 48" x .300" with standard rustic texture. The butt edge is not thatched since it was produced with an existing clapboard die, however, a thatch die can be built if warranted by estimated sales potential.

Experimental Ruco made with puffed perlite has passed 20+ cycles in the immersion freeze-thaw test without delaminating. Ruco normally fails in 7-8 cycles in this severe, accelerated test. Arrangements have been made for a full day's run with the puffed perlite in place of the crushed perlite bulking aid.

Preliminary tests indicated that it may be feasible to produce a deep, cross-textured Ruco sheet for 32" siding units using a textured accumulator roll. R&D has been working with the design consultant on a distinctive wood-grain texture and plaster-cast samples have been prepared for examination by the New Products Committee. If approved, purchase of an experimental accumulator roll will be recommended.

The two-tone "Cape Cod" weathered shingle appearance is being investigated from the standpoint of developing a paint application method. Pilot equipment has been assembled to evaluate a rubber roll coating process. Preliminary work has also been done using a felt curtain as a paint drag blanket.

The plastic application strip has now been fully tested in the laboratory and field with acceptable results and the unit has been released to Sales. Initially, shipments will be limited to 500 squares per month to permit orderly scale-up of activity. Research will monitor Purchasing and Quality Control testing until supplier reliability is demonstrated. A patent proposal has been prepared for consideration.

2. Canal Bulkhead

The first lot of new profile, CB-102 corrugated has been installed in a Florida bulkhead. No problems were encountered in the initial demonstration which was observed by an R&D man. The section modulus of this product is much higher than 4.2 pitch corrugated and the weight/strength relationship should make it more competitive.

3. Flat Sheets

Many delamination resistance tests have been made on Mobile and St. Louis production. Generally, Mobile product is rated "good" and St. Louis "poor-fair". Mobile dry scrap was run at St. Louis and showed a slight, but inadequate, improvement. A steel drive roll was tried at St. Louis and also was of in-

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sufficient benefit.

Following short trials, an extended run of flat sheets was made at South Bound Brook using J-M's Paperbestos #5. Veneer appearance was improved greatly over the regular formulation. A few "strings" of fiber were still visible on the surface. Re-runs are planned using non-pressure packed fiber since they appeared to be caused by insufficient dispersion, rather than fiber "roping".

B. Asphalt Products

1. Class A

Test runs of the polyester type Class A are being made at the rate of about 2 per week using the laboratory mixing equipment. The accurately measured batch is manually poured onto the production line and results in the manufacture of about 10 shingles for evaluation. Shingles produced in this manner were sent to Underwriters' for spread-of-flame testing and were found to have a 9 ft. flame spread, which is 3 ft. over the allowable maximum. These results indicate results on the flame spread apparatus at South Bound Brook will require more stringent ratings to correlate with the UL equipment. Formulations will now be modified to further reduce coating-slide characteristics and testing will continue. Longer high temperature dwell time of the coating that failed substantially increased the slide resistance and will also be explored.

USG's proposal to license their Class A shingle process is being studied and product and equipment costs are being estimated for review by the New Products Committee.

2. Timberline

Initial test runs have been made at Dallas with a newly designed texture roll. Sample decks showing differing degrees of texture depth have been prepared for examination by the New Products Committee.

3. Pilot Granule Applicator

Research personnel spent several days operating the pilot line to establish operating specifications for various type and size granules. Recommendations have been made involving mechanical changes and operating techniques.

4. Smooth Roll Roofing

Initial field tests of coated felt produced with the talc-Igepal antistick surfacing in place of soap solution were satisfactory. This new method which appears to overcome the problem of wet rolls has been released for commercial production at Millis. Pending experience, other products and other plants will be switched.

5. Paints and Plastics

Low cost, competitive products are being analyzed as part of a study to determine if the GAF "black-line" adhesives, cements and coatings can be more favorably priced. This is a complex subject, involving raw material formulations, packaging, overhead allocation, inter-plant transfer expense and mark-up. Initial review will be held at the New Products Meeting.

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