GAF CORPORATION

Interoffice Correspondence

RECEIVED
OCT 1 7 1980
J. J. IAQUINTO

PLAINTIFF'S EXHIBIT
GF-634

To: Dr. S. W. Kantor
Location: Wayne

From: P. S. Bettoli
Location: South Bound Brook

Date September 30, 1980
cc: C. Eckardt - NY
J. G. Hall - NY
F. G. Hubbard - Wayne
A. Lindenauer - Wayne
R. F. Smith - NY
B. Spardel - Wayne

Subject: MONTHLY HIGHLIGHT REPORT - SEPTEMBER 1980
BUILDING MATERIALS, ASBESTOS PAPER AND MINERAL PRODUCTS R&D

Attached is the subject report for the month of September.

Proprietary Information

P. S. Bettoli

PSB/cc
Att.

cc: Building Materials:

J. A. Brennan - NY
J. L. Butler - NY
L. J. Faneuf - NY

Asbestos Paper & Mineral Products:

R. F. McCarthy - NY
R. W. Smith - NY
L. G. Zachary - NY

Jim IAQUINTO
BOB OEGAFIELD
RALPH FARVOLO
F-Y-I
RETURN
JJB
10/6/80

PGAF
#19, p.5

MONTHLY HIGHLIGHT REPORT - SEPTEMBER 1980
BUILDING MATERIALS R&D

Proprietary Information

A. ASPHALT PRODUCTS

Shingles

A test job of the glass shingles made with a granule interlayer in the coating were applied with favorable results. The roofer commented on the ease of application and the "heavy feel" of this 265-lb/sq shingle. Additional runs are planned as soon as the interlayer grit applicator equipment has been installed. Est. cost??

Sentinel shingles produced at the final two locations, Erie and South Bound Brook, failed to qualify for UL Class A label service. The reason was low filler content in the coating due to the plants' inability to maintain the prescribed stabilizer level. A major problem has developed with the use of the gamma gauge for determining filler content in shingle coating on the South Bound Brook production line. The current installation depends on gravity feed of coating through a 4" pipe. A coke-like deposit from the new $FeCl_3$ treated asphalt builds up on the pipe wall and this results in plugging and restriction of flow. It is planned to install the instrument at Tampa, where it will function through the entire supply tank charge.

BUR

Conglas' first carload trial run using Chester's BUR mat was monitored to observe the mat performance and insure compliance with GAF ply sheet specifications. The material ran well and the product met all specifications. They were able to run at a lower weight than possible with their own mat. Following the trial, Conglas placed an order for 15 carloads to be delivered during October. A two truckload shipment of shingle mat is under evaluation at Bird, and preliminary reports are favorable. SALES Est.??

The asbestos-free Flashtite Cement, manufactured during the second run at Mobile, has been distributed in regular containers throughout the Mobile Sales District to determine field acceptance. A 50-gallon application was observed on a portion of a large shopping center job. The roofer preferred the properties of the asbestos-free material over the standard product used on the same job because of its better vertical sag resistance and good troweling characteristics. Est. cost??

Early 1982 → when commercial?

DOE Contracts

Costs projected at being lower than conventional cements & coatings

A trial run at South Bound Brook produced shingles using Gloucester felt which had been spray saturated in the dryer to +170%. Preliminary checks on the shingles indicate there may not be uniform, surface to center, saturation of the felt, and this is being investigated.

A pilot mixer batch of sulfur/asphalt coating was run on glass mat at South Bound Brook. It was learned that a higher viscosity will be required with this type coating on a glass base than on felt to prevent overembedment of the granules.

Asphalt Supply

There has been considerable activity on asphalt evaluation, and seven new sources were approved during the month. Hunt was evaluated and approved for Mobile, and a confirming trial run was made. Fluxes from Trumbull, Chevron and Texaco were approved for possible use at Tampa, pending GAF's take-over of the Exxon still yard. Asphalt International (Shell) flux was tested and approved as an alternate source for Savannah. Blending of the Indiana Farm Bureau and Chevron flux was investigated and approved for Mt. Vernon (this has the potential to save $25,000/month). Blending of the latest Edgington and Douglas coatings was approved for Fontana.



Proprietary Information

Glass Mat

Laboratory work and plant trials to develop a defoamer system for the Chester process water that does not have a deleterious effect on the mat wet tensile strength is continuing. Results of a trial run using a new U/F binder designed to provide better wet strength were virtually the same as with the standard binder. A brief run with SBR latex/UF blend binder had substantially superior wet tensile but will require some further study of the cure conditions to determine if slight wrinkling that developed during the trial was related to the new binder. If the wet tensile can be improved, two defoamers proven to be effective can be employed.

Four wet chopped, sized, glass fiber samples from Certain-teed were lab tested, and two were found to be comparable to OCF's M and K fibers.

Lab work indicates that hot water at a 2-4 pH disintegrates U/F binder in glass mat, and the drained, free fiber can be re-used at least at a 5% level. The latex modified U/F binder is much more resistant to this recovery treatment.

B. PLASTIC PRODUCTS

Gaftemp Insulation

A meeting was held with Sarnafil Co. to discuss a program to develop a non-asphalt faced, insulation underlayment for attached applications of their PVC single ply roofing systems. They require a facing that is free of asphalt and that will absorb water from their latex adhesive but retain its wet strength. Wet strength kraft and glass mat are potential candidates, and samples will be prepared for Sarnafil to evaluate. If successful, they will specify GAF's product for their jobs.

A trial run of ½" Gaftemp Sheathing was made and the product is undergoing tests for this service.

Gaflex Expansion Joint Cover (Gaflex EJC)

Production of Gaflex at Duro-Dyne's Cincinnati plant is scheduled for the week of September 29. This should meet Marketing's introduction target date for the release of the complete system in early October.

Single Ply Roofing

The installation of the various single ply EPDM roofing membranes on the South Bound Brook plant has been essentially completed. The applicator has expressed definite preference for the Uniroyal and Carlisle products over the Gates sheet due to the greater ease and speed of application of the membrane as well as the flashing. Both adhered and unattached applications are included. The installation labor involved has been greater than the amount originally estimated by the contractor.

C. GLASS FIBER RESEARCH



Proprietary Information

Composition and Raw Material Studies

The melting and fining characteristics have been determined on 22 raw materials suitable for use in the manufacture of C glass fiber. A one-hole fiber drawing bushing has been assembled and is in operation. This equipment will be used to characterize various glass compositions and to provide small samples for mat hand-sheet evaluation.

Mineral Blown Fiber Process

Seven different glass compositions, including Charmian fines, have been fiberized by high pressure attenuation. Several samples have been obtained which are well fiberized and have low "shot" contents. Some of these are under evaluation as partial replacement for drawn fiber in mat furnishes. Initial results at lower levels are encouraging.