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RESEARCH AND DEVELOPMENT PROGRESS REPORT

Corporate Technical Center
Bird & Son, inc.

PLAINTIFF'S EXHIBIT

BIR-1043

Project No. 007

Report No. 15

Written by K. Sutton

Date 4/26/79

Project Title: STUDIES OF PERFORMANCE PROPERTIES OF ROOFING

Subject: Asphalt Shingle Program Progress Report
3/15/79 to 4/14/79

Object: Improve overall durability of asphalt shingle.

An inspection of thick butt Jet II glass mat shingles was taken in the Houston and Shreveport areas. Seven of these roofs are suitable for long term observations while four may not be. All roofs were less than four months old. The four questionable roofs were all white and exhibited poor granule embedding. While in Shreveport, samples of shingles, saturated felt and dry felt were obtained from the felt and roofing mill for analysis at BBH. The Shreveport test decks for 1976-1978 were also inspected. The most recurring characteristic seen was minor rash blistering for both Bird and competitive shingles.

A meeting with Dow Chemical representatives generated interest in a new type of felt for roofing purposes. This felt would contain a high percentage of rock dust. The felt was formulated to be an alternative to asbestos felt and glass mat and can be manufactured on conventional felt machines. A visit to Dow's lab in Midland, Michigan was made by Bob Jagocki and Howard Hadfield to become familiar with procedures for preparing lab hand sheets. These procedures will be used at BBH in preparing hand sheets of various formulations. In addition, samples of the felt are being evaluated for saturation and tensile characteristics. If the latter prove adequate, a sample roll of mineral felt will be run into shingles at FM in conjunction with a planned mill trial.

Specifications and drawings were prepared for the proposed Fiberglass Architect^R 80 shingles. Actual shingles are being prepared to apply on the outdoor viewing decks. Additional work in the new products area concerned itself with an evaluation of procedures used in manufacturing Onduline.