

October 2, 1959

Mr. E. A. Edberg
Koppers Company, Inc.
Plastics Division
Monaca, Pennsylvania

Dear Ed:

Please excuse the delay in getting the roll roofing mock-up down to you. I was originally planning to use our Architect shingle stock; however, this product was not scheduled to be run for some time in the colors I wanted. Finally, I was able to have some material run on our roll roofing machine which was actually much more satisfactory for my purposes. The mock-up left East Walpole on September 30th via Railway Express.

This system is experimental as far as we are concerned. The area requiring more study would be the adhesive system used to cement the joint insert strip. Also, our present take-off equipment could not handle a 48" wide sheet.

My best estimate, at present, is that the price of this roofing material would be in the \$4.00/square range. We would strongly recommend that a hot melt adhesive be used to adhere the roofing to your plywood skin. Bird Ranch Roof cement would be satisfactory; however, it is a solvent cut-back and might affect your Dylite. If used in excess, it might also cause blistering of the roofing due to solvent entrapment. The hot melt application would probably require only 10 pounds or so of adhesive. We have an adhesive with which a square of material could be applied with roughly one dollar's worth of adhesive at most. Ranch Roof cement could be applied cold and the material cost would be in the \$1.25 range.

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We would definitely think in terms of handling this material in roll form. I would appreciate any thoughts you may have as to linear footage per roll, etc. Actually, we do not have equipment to wind this product at present.

We could offer a large variety of colors with a limited choice of patterns such as bands or swirls of color for a product such as this.

The joint system between panels would consist of a 4" wide insert joint strip which would be applied at the site. This could lend itself to either site application of the adhesive or factory application. My thinking, at present, is that a 2" selva edge on each edge of the roofing would be sufficient if a careful application of the joint insert strip is achieved. It would probably be an easy matter to design a hand tool which would apply adhesive and lay the joint insert on the site.

This particular mock-up which I have sent to you has a pressure sensitive adhesive holding the insert joint strip. I have included a black insert strip in the crate in case you are interested in seeing a second contrasting color. These insert strips were laboratory fabricated and are rougher than production material would be.

I shall be very interested in the reaction of your group to this material. It is a rather simple and obvious attack to factory installed finished roofing. If you were to use this product, could you give me any idea of your annual volume requirements?

I sent twenty four pieces of 4' x 8' Bird V3 Insul Sheath (foil one side) to Mr. Garay on September 23. I shall send him a letter covering this.

The expansion of our semi-pressed hardboard is 0.02% at the maximum. I have not been able to lay my hands on the values for fir plywood. Our tests were run with 50% to 97% RH/24 hours.

I hope I have answered most of the questions you might have at this time. If not, please let me know.

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The B.R.I. sandwich panel program looks very interesting.
I look forward to seeing you there.

Yours truly,

BIRD & SON, INC.

Norman D. Olson
Development Chemist

NDO/rp

cc: *Mr. Chamberlain*
Mr. Auld
Mr. Reynolds
Mr. Kemmerer