

MEMORANDUM
SHREVEPORT

In Reply to _____ Date 2/21/83 From W. E. McClung To Mr. J. Zilfi
Mr. F. W. Wood
 cc: Mr. H. Batchelder
Mr. J. K. Colvin
Mr. G. L. Dusty BE
Mr. J. Jackson BBH
Mr. R. C. Maloof BBP
Mr. S. E. Martin FS
Mr. D. R. Suva BM

Subject

Mineral Wool fiber in organic felt

Last year Flintkote received U. L. approval on its organic Seal Tab shingle at 140% saturation using a 48 pound felt. The substrate contains a minimum of 15% mineral wool fiber. Finished square weight is, I believe, 220 pounds. Obviously, Flintkote is not advertising all this.

Mineral wood is manufactured in several locations throughout the country and can usually be purchased at a delivered cost of \$.12 to \$.15 per pound, making it four times more expensive than wood flour. The payoff is not only in the finished product, but in the Felt Mill where the more open sheet dries at normal speed with low pressure steam, only. A negative aspect is a high percentage of shot (25% - 35%) which costs the same as the good material and requires a considerable capital investment to remove, if you choose to.

for glass mat needs to be removed

Glass fibers will perform the same function as the wool fibers but, of course, its use is cost prohibitive. There is no current technology to de-fiberize junk and core waste glass mat from roofing plants and/or glass mat plants, except by use of a blast furnace. (This would make an exciting research project.)

At Shreveport, 5 days of 48 pound felt production at 15%, would require about 103 tons of fiber. Five days will produce enough felt to meet 1983 sales plan on organic shingles for about 4 weeks. Just as soon as we get squared away on "woodless" felt, I'd like to run a trial and seek U. L. approval.

Joe, will you please run the numbers out on this under the following assumptions (all production on DSPM-1):

WIND SEALS

55 LB. "WOODLESS" HEAVYWEIGHT FELT

VS

48 LB. MINERAL WOOL FELT

- | | |
|--|---|
| 1. Furnish to be: | 1. Furnish: |
| (a) 55% Corrugated @ \$50.00/Ton | (a) 55% Corrugated |
| (b) 20% Mixed @ \$20.00/Ton | (b) 23% Mixed |
| (c) 23% Wood Flour @ 70.00/Ton | (c) 58% Wood Flour |
| (d) 2% Broke @ \$0/Ton | (d) 2% Broke |
| | (e) 15% minimum wool @ \$350.00 per usable ton |
| 2. Net Speed 5 FPM below 1982 average. | 2. 10% increase over 1982 average. |
| 3. Fuel use \$7.25 per ton below 1982 average. | 3. Fuel use \$9.00 ton below 1982 average. |
| 4. Steam use at 1982 average. | 4. Steam use 20% below 1982 average. |
| 5. Eliminate all costs relating to defiberating and chipping departments | 5. Eliminate all costs relating to defiberating and chipping departments. |

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- | | |
|--|---|
| 6. Reduce #1 Jordan expense 15% | 6. Same |
| 7. Weight per 480 square feet = 55 Lbs. | 7. Weight per 480 square feet = 48 Lbs. |
| 8. Squares per hour at 1983 standard. | 8. Same. |
| 9. Waste at 1983 Standard. | 9. Same |
| 10. Downtime at 1983 Standard | 10. Same |
| 11. Saturation at 170% net. | 11. Saturation at 150% net. |
| 12. Finished Product Weight 230 Lbs. net. | 12. Finished product weight 220 Lbs. net. |
| 13. Flate shingle at 60% Filler. | 13. Same |
| 14. All other raw materials at regular finished product standards. | 14. Same |

Also Joe, I'd appreciate a Finished Product cost comparison, using this felt on a 300 pound Architect vs. current production on glass; and a 200 pound "Wind Seal II" with 60% Glenwood Slate in the exposed portion of the shingle, plus 20% green and 20% gray (3 year total replacement guarantee only).

WEM/ae