



MEMORANDUM

cc: Dr. Schnizer - BE
Mr. Homan - BBQ
→ Mr. Weaver - BBH

To Mr. Sutton - BBH
From R. Jagocki - BBH
Date October 20, 1977
Subject TRIP ON 10/11 & 10/12 TO SHREVEPORT, LOUISIANA FELT MILL

PLAINTIFF'S EXHIBIT

BIR-1027

Introduction

On October 11 and 12, 1977 during our trip to the Shreveport and Houston test decks, I went quickly through the Shreveport, Louisiana felt mill with Bill Kirklin. I was able to go through the roofing felt stock preparation, refining, #1 cylinder machine, observe the QC procedures now in use off the machine and examine other lab equipment available. Bill Kirklin and his staff were extremely cooperative.

A. Stock Preparation

1. Wood Chips

Wood is purchased in log form and chipped at the mill. The wood used is almost all southern pine with only a small portion (5% or less) being hardwood. Hardwood is not processed separately as it is at the Phillipsdale, R. I. mill. In the past, hardwood was much more available, and a considerably higher percentage of that type was used than is now. No production differences have been noticed in going to almost all pine. The logs are chipped together in a recently installed 24" chipper and then sent to the Asplund defibrators. At the time of the visit only two of the three defibrators were in use. Liquid caustic soda is added to the wood as it enters the defibrator. This tends to control the rosin present in the southern pine as well as neutralizing most of the acid generated in the defibrating action. The stock is then sent to a wood holding chest and then to the proportioning box.

2. Waste Paper

Two types are used in Shreveport - corrugated and mixed. The bales are inspected for excessive plastic, highly coated paper, metal, etc. These can be rejected by the receiving foreman. Moisture content is monitored when doubtful and anything over a set maximum can be billed back to the supplier.

The mixed and corrugated are pulped together in a 14' hydropulper for the #1 machine which makes shingle felt. Bags of lime are periodically added to hydropulper for pH control. After normal secondary fiber cleaning equipment the stock goes to a holding chest. From the holding chest the stock goes to the proportioning box.

3. Wood Flour

Wood flour is purchased and stored in a silo. It is monitored by QC for particle size and moisture. The wood flour is added at the proportioning box.

4. Broke

Broke and deckle trim is taken back to the hydropulper and added back into the system at a reasonable rate. It is not pulped, stored and metered separately as at Phillipsdale.

B. Refining

The defibrated wood chip stock goes from the proportioning box to a Claflin refiner. It then joins the waste paper stock and wood flour. The combined stock then goes through two jordans and into the machine chest. From the machine chest the stock goes through a consistency regulator and through more stock screens and cleaners and then onto the felt machine.

The stock is run at a pH of 6.0 to 7.0. They do not want to run on the neutral or slightly alkaline side due to build-up of mineral on wires and pipes, which causes severe runability problems.

C. Felt Making

The felt machine is a single cylinder, reverse flow, 169" wide, 156" trim machine. It has two suction presses, 50 high pressure steam dryers and auxiliary gas flame dryers over the top dryer rolls.

A reel of felt comes off the machine about every 35 minutes.

D. QC Testing

A strip is taken off every reel and tested by the back tender for the following:

1. A.D. Basis Wt #/480 ft² - 8 positions across the web.
2. caliper - reported as average.
3. kerosene - 2" x 5" - burette method - 175 minimum run on front, center and back-they

October 20, 1977

do not allow for 10 drops or less that drop off in 30 seconds to be deducted from burette readings.

4. % moisture run on front, center and back - center reported as average. Run to 5.5%-6% target.
5. tensile - on Scott they run on front, center and back - reported as average. 33 lb. minimum.
6. Xylol - run on front, center and back - reported as average - 25 maximum.

Felts not passing critical kerosene, weight and tensile are downgraded to less demanding grades of felt.

The instruments are fairly adequate for normal QC. The weight scales are protected in boxes but do not have transparent plastic faces with small hinged cut-outs for sample insertion as Phillipsdale does. This could cause slight errors from drafts. Xylol test is extremely primitive. They do not have a Toledo basis weight scale and use a swinging pendulum type.

E. QC Laboratory

The Shreveport QC lab runs daily checks on wood chip moisture, wood flour particle size and moisture. Also the hydropulper temperature, cylinder vat temperature, consistencies of waste paper, defibrated wood chips, head box and/or vat and the pH and total acidity of machine stock and defibrated wood chips.

F. Comments and Recommendations

1. The QC procedures are not the same for Phillipsdale, R. I. and Shreveport, LA felt mills. There are differences in number of samples, where they are taken and how test is performed. In particular the kerosene test, moistures and xylol. Every mill should perform the tests as closely as possible to minimize experimental differences.
2. The proposed BBH program to test felts from all Bird and outside suppliers should be able to detect any gross differences between mills which use different raw material proportions and types of machinery. At that time further comments between the various mills can be made.
3. It will be of interest to see how the use of southern pine in the defibrated wood chip portion compares with the northern hardwood in Phillipsdale, R. I. felt.

RJ: fed

R.J. Jagocki