



MEMORANDUM

PLAINTIFF'S EXHIBIT

BR-131

To J. A. Hixon-BB cc: F. W. Wood-BBR
From D. E. Frazier-BBR C. A. Homan-BBQ ✓
Date 11-29-77 W. E. Smith, Jr.-BBA
Subject 15# ASPHALT PERFORATED FELT

In response to your memorandum of October 28, 1977 on the subject I would like to supply the following.

Obviously, none of us are able at this time to generate the proper answer to the problem at Perth Amboy. Actually, there seems to be two problems.

First, Perth Amboy is struggling to make perfectly wound rolls so that they do not run into complaints from telescoping which are prevalent in the Philadelphia area. I believe everyone will agree that a lack of adequate tension in winding is the prime cause of telescoping rolls. Thus, when Perth Amboy applies what they believe to be the adequate tension, we apparently provide too much tension for the inner portions of the roll and this results in the Boston area complaint of the roll not properly deconvoluting or resisting unwinding in the last 30 to 40 feet. If I can believe the Perth Amboy people, roofers in those areas do not complain about this feature.

Perth Amboy does use a higher softening point asphalt than does Shreveport and Shreveport usually gets a good rating from the Boston roofers. Some recent examples of Shreveport perforated felt picked up at the St. Louis warehouse were considered wholly unsatisfactory when reviewed by myself and Messrs. Homan, Wood and Clark. We unwound a series of these Shreveport rolls in comparison with certain Perth Amboy rolls and while they were superior to the Perth Amboy rolls, they did not unwind readily in the last half of the roll. There was also the so-called "singing" that is described as a complaint in the Boston area.

Very recently while at Franklin, I checked a roll of perforated felt that was approximately a week old and it was amazingly good in all aspects. I can only describe it as the best unwinding roll of felt I have seen in many years. As a result of this we have talked with the operators of the winder at Franklin to get their techniques and have supplied this to Mr. Dickinson. In addition



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we are retrieving a pallet load of this material from Franklin and it will be at the Norwood plant no later than December 5. We should examine a series of this pallet load to establish the unrolling characteristics on average. If it is still excellent we should supply Perth Amboy with several of these rolls for closer examination.

My recommendations for corrective action at Perth Amboy, has to be based heavily on opinion. Other generalized influencing factors also are part of my opinions.

I would recommend that Perth Amboy and Mr. Clark at Norwood examine the Franklin rolls carefully for total saturation. They should also press out enough saturant asphalt to ascertain the characteristics of this particular asphalt versus their own. They should set up a program of minimizing tension between the mandrel bar and the feed rolls. I have suggested to them that they counterweight the lifting bar on this particular roll experimenting with a series of weights until they get the optimum setting. I also recommend that they experiment heavily with the drive ratios between the main drive and the mandrel drive so that at the start of winding, the ratio be as near as one-to-one as is possible. As the diameter of the winding roll increases, the ratio of wind becomes greater on the mandrel bar. With a judicious reduction in tension through the use of magnetic clutches, it is hoped that a straight roll can be wound without too great a tension and the resultant be satisfactory.

Other areas of concern have been moisture caused by excessive use of cooling water or excessive use of water at the winder itself. Perth Amboy personnel seem to be well appraised of this and are controlling moisture to the point where I doubt it can be a factor in this problem. At Perth Amboy we are winding at a much more rapid pace than is the case at Franklin and this may contribute heavily to the problem if our ratios are very far off from one-to-one.



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Finally, to my "opinion" mentioned above. It is my opinion to obtain a roll of felt that will unwind consistently without resistance, we have to have a dry felt made of as soft fibers as is possible to obtain, we must saturate as low as will be acceptable, we must wind the roll with a minimum of tension and we must keep the roll from being subject to excessive quantities of moisture that will cause the fibers to swell and the roll to tighten after being wound and placed in storage.

DEF
DEF/O