

Research Report No. 21-4841
Problem No. 10-R-9
Date: 3-30-39

Special Australian Fiber D-M Grade
Magnetic Iron Content

Cross Reference: Australian File ✓
Iron Content - Mkt. Development

RESEARCH LABORATORIES

REPORT NO. 12-36

Problem No. 10-R-7

Date: 2-16-40

Subject: Examination of Rhys Australian Blue Asbestos Fibre Crude.
Rhys Grade, No. 3, Sample #410.

Summary: This sample of Australian Blue may have possibilities for use in Transite Pipe. However, a suitable amount of the fibre should be obtained for further tests at the Pipe Plant.

Cross Reference: Asbestos (Australia) ✓
" General Information
" Class. & Tests
" Research & Development
" Specific Usage (Transite Pipe).

Johns-Manville Research Laboratories
Manville, New Jersey

USE OF AUSTRALIAN (ATM) BLUE FIBER IN TRANSMITE PIPE

CONFIDENTIAL

Report No. 23-906
Problem 10-B-9.4
May 8, 1941

CONTENTS OF REPORT

- I. Summary
- II. Purpose and Scope
- III. Procedure
- IV. Discussion
- V. Work in Progress
- Tables I - IV, Incl.

I. SUMMARY

(1) A shipment of Australian Blue fiber, designated as ATM Grade 34, was made available to the Research Laboratories for examination of its characteristics and capabilities in the manufacture of Transite Pipe. A number of trial runs of approximately 8 runs each have been made using varying percentages of this fiber in combination with Viny 4T and scrap. This report discusses the results obtained in comparison with the standard M42 and M62 blends.

(2) The fiber is closely similar to the M42 Australian Blue which was reported on previously (see Reports 23-876 and 23-903). It is somewhat longer than the standard M4 Blue, but quite similar to it in its other visual characteristics.

(3) The effect of the longer fiber length is clearly apparent in the standard Quebec Screen tests. The experimental blends showed approximately 3 to 7 ounces retained on the $1/2''$ screen, depending on the percentage of blue fiber used, as compared with an average of less than 2 ounces for the standard blends. The total of retention on the $1/2''$ and $1/4''$ screens, however, was essentially the same for all blends. Buoyancy was somewhat lower than for the standard materials.

(4) On the basis of comparisons between pipe of six inch size made using this fiber and with the standard furnish, the use of a blend containing 25% ATM Blue, 75% of Viny 4T, plus a 100 lb. scrap addition per 1000 lbs. of fiber appears to be feasible. There is, also, evidence that a further reduction in blue fiber can be made, but the operation periods during which blends using 20 and 22 1/2% of the Australian Blue were observed were controlled by faulty operating conditions, affecting the standard material as well as the experimental product. A comparison of the results, nevertheless, indicates that further consideration of a blend containing 20% of the ATM fiber is justified.

(5) In accordance with these observations, two additional experimental runs are planned, each of which shall be of not less than 24 hours duration. The first of these will use the blend designated as N87, containing 20% Australian ATM Blue and 80% Viny 4T with a 100 lb. scrap addition per 1000 lb. of fiber. The second run will use the blend designated as N88, consisting of 22½% ATM Blue, 77½% Viny 4T with 100 lb. scrap added per 1000 lb. of fiber. Results of these two runs will be discussed in a supplementary report, since the status of production requirements at this time indicates that some delay in this work may be necessary.

File: Reports, Research

Asbestos - Australian Blue ATM

- " - Class. & Tests
- " - (Specific Usage) Transite Pipe
- " - Research & Development
- " - Fibre Evaluation
- " - Purchasing

RESEARCH LABORATORIES

Johns-Manville,

Manville, N.J.

Report No. 12-55
Problem No. 10-M-1
Date: 9/5/40

CONFIDENTIAL

Requested by: Dr. E. W. Rembert

Subject: Examination of Blue Fibres and Blue Fibre Blends

SUMMARY:

Comparative examination is made of several blue fibres and blue fibre blends.

The Rhys Australian Blue appears equal to the Cape MS Blue in compressive strength, the former being lighter in density.

The Newman Cape S Blue is slightly superior in compressive strength to both the Rhys Australian and Cape MS Blue.

The blue fibre blends (M-39, M-48, and M-49) are prepared by the addition of Vimy 4T, C&G #3 and 4 fibres and added pressure pipe scrap. The blends contain more fines and are more dense than the blue fibres alone.

Considerable fines are present in the pressure pipe scrap added to subject fibre blends.

The blend M-48 (Rhys Australian Blue) appears equal to the blend M-39 (Cape MS Blue) and both are slightly inferior in compressive strength to the blend M-49 (Newman Cape S blue).

The blends under discussion are markedly inferior to the unblended blue fibres in compressive strength. Blend compressive strength is approximately 30% of the strength observed for the 100% blue fibres.

This reports consists of:

Summary (1)
Discussion of Data (2)
Appendix (3).

Cross Reference: Asbestos (Specific Usage) in Transite Pressue Pipe ✓
" - South African Blue - Asbestos - Australian Blue

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INITIALS

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SIGNIFICANT

NOTES

all - B & B

Early letters - Re: Mining
Listing

Manville → Australian Mines