

DIVISION OF CHEMISTRY

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- TOPICS:
1. Utilization of Short Fibre.
 2. Asbestos Fibre for Filtration Purposes
 3. Standard Testing Procedure.
 - 4. Q. A. P. A. Meeting.
 5. Tests on Asphalt Floor Tile.
 6. Visitors to the Laboratory.

1. Utilization of Short Fibre.

(a) It has been found that if the light material is separated from short fibre (7 R) and is then mixed with portland cement, the product obtained is considerably lighter in weight than when the whole fibre is used. Thus, with equal weights of this light fraction and portland cement, the product weighs about 40 lbs/cu.ft. and has considerable strength. Because of the low density this product should also have low thermal conductivity.

Using fibre such as has been prepared for filtration purposes, a product of very low density was obtained - 17 lbs/cu.ft., and the colour is light cream.

(b) The pressure molded specimens mentioned in the previous report, (No. C47-38, p.2, par.f) have been broken and the following figures are representative of the results obtained:

<u>Fibre No. 646 - 1 part</u> <u>Portland Cement 1 part</u>	<u>Tensile</u> <u>Strength</u>	<u>Comp.</u> <u>Strength</u>	<u>Density</u>
No water added	1125 lbs/sq. in.	15,375 lbs/ sq. in.	2.27 gms/cc or 142 lbs/cu.ft.
7.5% water added	1225 " " "	19,875 lbs/ sq. in.	2.40 gms/cc or 150 lbs/cu.ft.
15% water added	1340 " " "	19,000 lbs/ sq. in.	2.27 gms/cc o 142 lbs/cu.ft.

The specimens which were molded with water had a very pleasing appearance, and should be suitable for decorative building purposes.