

ONLY THE TITLE PAGE AND THE SUMMARY PAGE ARE HELD ON THIS FILE

THE FULL REPORT CAN BE SEEN ON APPLICATION TO CENTRAL FILING

IMPREGNATED FILTER ROD TRIALS

LABORATORY REPORT NO. L.99-R

9.9.63

AUTHOR: H. G. Horsewell

WORK BY: J. B. Preston

APPROVED BY: W. B. Fordyce

BY: D. G. P.

PROJECT NO. 3400

DISTRIBUTION

1. J. Robinson Esq.	Copy No. 1.
2. W. Wilson Esq.	" " 2.
3. M. Boothroyd	" " 3.
4. H. H. Jnr. Esq.	" " 4, 5, 6.
5. G. Simpson Esq.	" " 7, 8, 9.
6. H. H. Esq.	" " 10, 11.
7. J. J. Esq.	" " 12, 13, 14.
8. G. J. Esq.	" " 15.
9. G. B. Esq.	" " 16, 17.
10. G. B. Esq. File No. 403-9	" " 18.

CREATED BY FILE NO.

100096045

H/V5/463-9

27th August, 1963.

IMPREGNATED FILTER ROD TRIALS

(Laboratory Report No. L.99-R)

SUMMARY AND CONCLUSIONS

The work described in this report forms part of a Head Office smoking trial (Impregnated Filter Rod Trials H.O. Ref. W.126/1/2) to determine whether cigarettes manufactured with threaded roll filters, (with and without polyethylene glycol-PEG), give a smoke noticeably different from the standard product.

Four cigarette brands were tested; batches of each brand were manufactured in turn with tension bloomed filters, threaded roll filters, and threaded roll filters impregnated with polyethylene glycol. Each batch of cigarettes was evaluated in terms of filtration efficiencies for nicotine and phenols, and phenol yield.

The results show that

- 1) Filters of the same draw resistance made by the two processes (threaded roll and tension blooming) have the same filtration efficiency for nicotine.
Filters with draw resistance equal to that of tension bloomed filters can be made by the threaded roll process from tow reduced in denier by 5,000 - 10,000.
- 2) Filters made by the two processes, equal in draw resistance and in triacetin content, have the same filtration efficiency for phenols.
- 3) Impregnation of the threaded roll filters with polyethylene glycol (4.5% to 6.2%) increases the filtration efficiency for phenols by 5 - 10%.
- 4) Phenol yields of the four brands bearing tension-bloomed filters, ranged from 85 - 96µg/cigarette; phenol yields were decreased in all cases (to 56 - 76µg) when the PEG - impregnated plugs were used.

100096046