

BROWN & WILLIAMSON TOBACCO CORPORATION
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SUBJECT: A REVIEW OF PLASTICIZER USAGE AT B&W/399

The first plasticizer used by B&W was Monsanto M-17 (composition and level unknown). After M-17, Estrobond A (di-2-methyloxyethyl phthalate) was used. With Estrobond A it was necessary to heat the plasticized rods for several hours in an oven. In 1960, 6-8% triacetin was adopted since treated rods only need two hours at ambient temperature to cure with this plasticizer. In 1963 PITLOW was added to the triacetin because of its selectivity for phenols. During 1968 TEGDA replaced triacetin because it reduced cure-time to 15 minutes. A "pack triad" Consumer Test (MR1967-18) indicated no difference between 6/5 Triacetin/PITLOW and 6/5 TEGDA/PITLOW, both at 11%. As a result of material shortages, the level of TEGDA/PITLOW was reduced to 9.5% in early 1974.

In 1978 product developers began exploring the use of triacetin at 7%. Expert smokers consistently find triacetin to give less dryness, and a more rounded, fuller bodied smoke than TEGDA/PITLOW. Triacetin also tends to moderate stem taste and irritation. In addition to these small, but positive smoke quality characteristics, triacetin also allows more efficient transfer of menthol. With menthol brands, the use of triacetin increases menthol transfer about 10% which permits a reduction in applied menthol.

Since 1978 many of our brands have changed to triacetin. The following table lists the domestic and International products, excluding ACTRON filter products, currently using 9.5% TEGDA/PITLOW; all other brands use 7% triacetin except Moorgate Brands which also have the Micronite additive.

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Domestic*/Military

RALEIGH KS/100
KOOL 100**
KOOL MILDS 100
LAREDO Menthol/Nonmenthol

International

FALCON 80/KS
KOOL SUPER LIGHTS 100
KOOL 100 G.E./Saudi & Gulf
PALL MALL G.E./Saudi
RALEIGH KS
VICEROY KS G.E./Saudi
VICEROY 100
VICEROY LIGHTS 100

*In early January 1984, VICEROY 100 will change to triacetin (i.e., LAMARK "E")

**Improvement candidates with 7% triacetin are currently being consumer tested.

ACTRON filters currently use high levels (13/15%) of TEGDA. In Development Center trials with triacetin, we found that only after extended holding times (~24 hrs.) did the rods groove properly on the roller groover. At that time, it was concluded that this lengthy holding time would be untenable in the production environment. Although no recent experimentation has been done with triacetin on ACTRON filters, we have no reason to believe that anything has changed this situation.

All major competitive U.S. cigarette manufacturers, except American, use triacetin at about 7%. American uses 7% of an approximately equal mix of triacetin and TEGDA.

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D. M. F.

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