

CONFIDENTIAL

Product Research Report

MDD #85-14802

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FROM: L. S. Firey

VAT 100MM SP PROTOTYPE TEST

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R.J. REYNOLDS TOBACCO COMPANY, WINSTON—SALEM, N.C. 27102**

VAT 100MM SOFT PACK PROTOTYPE TEST
(MDD #85-14802)

EXECUTIVE SUMMARY

PURPOSE

This report provides an analysis of three VAT 100mm SP prototypes (496A, C, E) versus Merit Filter 100.

BACKGROUND

VANTAGE is currently investigating the consumer appeal and market potential for line extensions of the Parent Filter 85mm and 100mm styles. Accordingly, plans currently call for VAT to be test marketed in both soft pack (85mm and 100mm lengths) and box (79mm and 94mm lengths) configurations first quarter 1986. This specific test represents development work and testing on the VAT 100mm soft pack configuration.

In prior testing (conducted in fourth quarter, 1984) alternative VAT 100mm soft pack prototypes failed to achieve the action standard of superiority versus Merit Filter 100. Direction for future development from this test indicated that improvements should focus on decreasing harshness and strength, while increasing smoothness and mildness. Accordingly, three prototypes were subsequently developed to address these deficiencies. This reports the findings of these three prototypes in relation to Merit Filter 100.

ACTION STANDARD

Superiority versus Merit Filter 100 among competitive FFLT NM 100 25-34 year old smokers.

KEY CONCLUSIONS/FINDINGS

- Among FFLT NM 100 25-34 year old smokers, none of the VAT 100 soft pack prototypes achieved the action standard of superiority versus Merit F100.
 - Prototypes #1 and #3 (496A and 496E) were at parity with Merit on overall acceptance.
 - Prototype #2 (496C) was inferior to Merit (as well as the remaining VAT 100mm soft pack prototypes).

<u>OVERALL %7+ ACCEPTANCE</u>	
	<u>Among Competitive FFLT NM 100, 25-34 Year Old Smokers</u>
Merit F100	57.6
Proto #3 (496E)	52.9
Proto #1 (496A)	52.6
Proto #2 (496C)	↑ 42.9

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KEY CONCLUSIONS/FINDINGS (Continued)

- On four attributes, the three prototypes were rated similarly versus Merit F100. They were rated at parity on mildness, artificial taste, filter hardness and dry sensation (in mouth).
- On the remaining attributes, the prototypes performed differently (relative to Merit), as shown:

	<u>PROTOTYPE #1 (496A)</u>	<u>PROTOTYPE #2 (496C)</u>	<u>PROTOTYPES #3 (496E)</u>
<u>Parity</u>	Harsh Tobacco taste Like filter	Strong Harsh Smooth Tobacco taste Bitter taste Pleasant odor	Smooth Bitter taste Pleasant odor Like filter
<u>Inferior</u>	Stronger Less pleasant odor	Like filter (less)	Stronger More harsh
<u>Superior</u>	Smoothness Less bitter taste	None	More tobacco taste

NEXT STEPS

Based on these results, it appears that prototypes #1 and #3 represent the most viable candidates for further refinement to achieve the superiority goal relative to Merit. Upon reviewing detailed findings in this report, R&D will establish a schedule for the next wave of VAT 100mm soft pack development/testing.

DETAILED FINDINGS

A. Overall Performance

- Among 25-34 year old target smokers, VAT 100mm SP prototypes #1 and #3 were rated at parity with Merit F100. Prototype #2 was rated inferior to Merit as well as the remaining VAT 100mm SP prototypes. None of the prototypes achieved the action standard of superiority versus Merit F100.

<u>OVERALL %7+ ACCEPTANCE</u>	
<u>Among Competitive FFLT NM 100, 25-34 Year Old Smokers</u>	
Merit F100	57.6
Proto #3 (496E)	52.9
Proto #1 (496A)	52.6
Proto #2 (496C)	↑ 42.9

B. Product Attribute Performance Relative to Merit Filter 100

- Relative to Merit, the prototypes were rated similarly on only four attributes. All three prototypes were rated at parity with Merit F100 on mildness, artificial taste, filter hardness and dry sensation (in mouth).

	<u>PROTOTYPE #1 (496A)</u>	<u>PROTOTYPE #2 (496C)*</u>	<u>PROTOTYPES #3 (496E)</u>
<u>Parity</u>	Harsh Tobacco taste Like filter	Strong Harsh Smooth Tobacco taste Bitter taste Pleasant odor	Smooth Bitter taste Pleasant odor Like filter
<u>Inferior</u>	Stronger Less pleasant odor	Like filter (less)	Stronger More harsh
<u>Superior</u>	Smoothness Less bitter taste	None	More tobacco taste

*NOTE: Prototype #2 was rated significantly lower than the remaining prototypes, as well as Merit F100 in terms of overall acceptance. Its attribute performance in relation to Merit F100 would not appear to support its inferior acceptance. However, its attribute performance in relation to prototypes #1 and #3 clearly support its inferior acceptance. Although prototype #2 is superior to prototypes #1 and #3 on strength and harshness, it is inferior on smoke through filter, fresh aftertaste, artificial taste, tobacco taste and filter likeness (see attached table).

C. Refinement Opportunities

- To achieve the desired superiority goal versus Merit F100 among target smokers, refinement opportunities for all three prototypes are to:

- increase smoothness
- decrease harshness
 - strong aftertaste
 - lasting aftertaste
 - drying aftertaste

Other refinement opportunities for the prototypes include providing:

PROTOTYPE #1 (496A)

Less mildness
Less strength
Easier draw

PROTOTYPE #2 (496C)

More tobacco taste
More fresh aftertaste

PROTOTYPES #3 (496E)

More mildness
Less strength
More fresh aftertaste
Easier draw

D. Methodology

- The standard NFO two pack monadic test design with telephone callbacks was used in this study. Three VAT 100mm SP prototypes were each tested among ending samples of 300 NM FFLT 100mm competitive smokers 25-34 years old. The results were compared to Merit F100 obtained from Wave IV of the 1984 competitive series.

E. Attachments

- Attribute ratings
- Attribute relationships
- Product descriptions of 496A, C and E
- Analytical data for 496A, C and E

MEAN ATTRIBUTE RATINGS
AMONG COMPETITIVE FFLT NM 100MM 25-34 YEAR OLD SMOKERS

	VAT 100MM SOFT PACK				Merit F100	Mean Ideal
	Proto #1 (496A)	Proto #2 (496C)	Proto #3 (496E)			
Strong	3.44	3.23*	3.53	3.24*		3.29
Smoke thru filter	3.47	3.82	3.47			2.89
Harsh	3.17	2.97	3.37	2.99		2.59
Fresh aftertaste	3.43	3.03	3.36			4.28
Smooth	4.59	4.36	4.51	4.37		5.10
Strong aftertaste	3.33	3.38	3.52			2.56
Tobacco taste	3.82*	3.52	3.95*	3.65		3.88
Drying aftertaste	3.62	3.73	3.79			2.49
Mild	4.63	4.80*	4.65	4.62		4.91
Lasting aftertaste	3.24	3.30	3.46			2.69
Hard filter	3.83	3.86	3.83	3.84*		3.68
Artificial	3.55	3.90	3.67	3.73		
Bitter	3.03	3.19	3.11	3.22		
Dry in mouth	4.44	4.10	4.25	4.29		
Unpleasant odor	2.87	2.74	2.74	2.64		
Not like filter	3.56	3.82	3.38	3.55		

← Points toward product with advantage.

* Indicates product is at its ideal.

NOTE: The three prototypes were tested using a recently modified product test questionnaire, whereas the Merit results were obtained from the standard product test questionnaire employed in 1984 competitive product testing. Therefore, no relationship can be discerned between the prototypes and Merit on several attributes. From the standard questionnaire, these attributes include draw, burn rate, satisfaction and good/bad aftertaste. From the new questionnaire, these attributes include fresh aftertaste, strong aftertaste, drying aftertaste, lasting aftertaste and smoke through filter.

ATTRIBUTE RELATIONSHIP

PROTOTYPES VERSUS MERIT FILTER 100MM

	<u>Prototype #1</u> (496A)	<u>Prototype #2</u> (496C)	<u>Prototype #3</u> (496E)
<u>Attributes where all 3 prototypes were at parity with Merit F100</u>			
Mild	P	P	P
Filter hardness	P	P	P
Artificial taste	P	P	P
Dry in mouth	P	P	P

Attributes where all 3 prototypes differed in performance relative to Merit Filter 100

Strong	I	P	I
Harsh	P	P	I
Smooth	S	P	P
Tobacco taste	P	P	S
Bitter taste	S	P	P
Pleasant odor	I	P	P
Like filter	P	I	P

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IIIA IIA IA A AI III II I

496 A	496 C	496 E				
11.8	11.1	12.6	1.06	1.20		
mg/puff	mg/puff					
.87	.78	.99	.07	.09		
Nicotine, mg/cig						

Moisture, initial	12.95	13.23	12.97
banded	13.25	13.50	13.19
Weight, gms.	1.2027	1.2190	1.2264
Draft, mm	152	163	154
Firmness (0.1 mm)	9.34	8.76	9.29
Size, mm (circumference)	24.84	24.89	24.90

Menthhol, Z				
Menthhol, mg/clg.				us, puf

				Tar, mg/cig.
				Nicotine, mg/cig.
				Moisture, int{g}
				Bonded

[illegible]

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Menchoi, M. / C. L.

January 15, 1985

TO: T. C. Harris
L. J. Inman

FROM: R. C. Pasterczyk

SUBJECT: VAT PROTOTYPES - TOPLINE

Purpose

This memo provides % 7+ topline results of three 85mm and two 100mm VAT soft pack prototypes.

Action Standard

VAT 85mm: Superiority versus Merit F85 among 25-34 year old target smokers.

VAT 100mm: Superiority versus Merit F100 among 25-34 year old target smokers.

% 7+ Findings

- None of the 85mm soft pack prototypes attained action standard.
- Neither of the 100mm soft pack prototypes attained action standard.

VAT 85mm				
	Proto #1	Proto #2	Proto #3	Merit F85
% 7+	54.6	53.6	54.7	55.8
Met action standard?	No	No	No	

VAT 100mm			
	Proto #1	Proto #2	Merit F100
% 7+	55.9	50.8	57.6
Met action standard?	No	No	

Next Steps

Final report, including attribute ratings, will be issued week of January 21.

Special Note

In a test conducted and reported earlier, WINSTON Lights 100 prototype #118B was directionally superior to Merit F100. This learning may be applicable for further product development on VAT F100 soft pack prototypes.

WINSTON LTS F100			MERIT F100
	PROTO #118B		
% 7+	61.4	< - - - - -	57.6

Reggie
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Marketing Development Department

RCP:df

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