

3R4F Preliminary Analysis

Cigarette Design Criteria

Cigarette Length	84 mm
Tobacco Rod Circumference	24.8 mm
Tobacco rod Length	57 mm
Filter Length	27 mm
Total Resistance to Draw (RTD)	128 mm H ₂ O
"Tar"	9.5 mg/cigt

Cigarette Rod		Cigarette Filter	
Filter	3R4F Blend	Tow	Cellulose Acetate 2.9/41,000
Cuts per Inch	30	Plasticizer	9% Triacetin
Paper Permeability	24 CORESTA units	4-up Resistance to Draw	115 mm H ₂ O
Paper Citrate	0.60 %	Circumference	24.45 mm
Tobacco Weight (13% OV)	0.783 mg	Length	27 mm
Length	57 mm		

Target Total Cigarette

Tipping Paper Length	32 mm, white
Dilution	30 +/- 5%
Circumference	24.8 mm
Length	84 mm
Resistance to Draw	128 mm H ₂ O
Weight	1.06 g
Pack Moisture	13% Oven Volatiles

Final Total Cigarette Measurements (n = 11)

Dilution	29 (4.2) %
Circumference	24.9 (0.07) mm
Total Resistance to Draw	133.5 (4.45) mm H ₂ O
Cigarette Weight	1.05 (0.002) g
Tobacco Weight	0.775 (0.001) g
Pack Moisture	12.9 (0.33)% Oven Volatiles
Firmness	2.43 (0.113) mm

Preliminary FTC Smoking Results Average
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Butt Length	35 mm
Puff Count	9.0 (0.112)
Total Particulate Matter, TPM	10.9 (0.168) mg/cigt
"Tar"	9.4 (0.142) mg/cigt
Nicotine	0.726 (0.009) mg/cigt
Carbon Monoxide	11.9 (0.208) mg/cigt

Final FTC Smoking Results Average (n=12)

Puff Count	9.0 (0.15)
Total Particulate Matter, TPM	11.0 (0.33) mg/cigt
"Tar"	9.4 (0.30) mg/cigt
Nicotine	0.73 (0.013) mg/cigt
Carbon Monoxide	12.0 (0.48) mg/cigt

Preliminary Filler Analysis

Total Alkaloids	1.98 % (.04) at 13% Oven Volatiles
Reducing Sugars	8.4 % (0.4) at 13% Oven Volatiles
Glycerin	2.7 % (0.1) at 13% Oven Volatiles

Final Filler Analysis (n=23)

Total Alkaloids (as-is)	2.05 % (0.04) at 11.6% Oven Volatiles
Reducing Sugars (as-is)	8.7% (0.3) at 11.6% Oven Volatiles
Glycerin (as-is)	2.36 % (0.05) at 11.6% Oven Volatiles

Blend Summary	2R4F	3R4
Flue Cured	32.51 %	35.41%
Burley	19.94 %	21.62%
Maryland	1.24 %	1.35%
Oriental	11.08 %	12.07%
Reconstituted (Schweitzer Process)	27.13 %	29.55%
Glycerin (dry-weight basis @ 11.6% OV)	2.80 %	2.67%
Isosweet (Sugar)	5.30 %	6.41%