

FILE NAME: Kent (KNT)

DATE: 1954 Dec 1

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DOCUMENT DESCRIPTION: Unpublished Report - Description of Sample
with Cover Letter to Dr. Harold Knudson

December 1, 1954

Dr. Harold Knudson
Technical Director
Hollingsworth & Vose Co.
East Walpole, Massachusetts

Dear Dr. Knudson:

We have finally received a report from Dr. Ernest Fullam, the electron microscopist in Schenectady, covering the first 18 samples of experimental Kent cigarettes with which we furnished him. It occurs to us that you may be interested in receiving a summary of Dr. Fullam's findings.

By way of explaining the attached table, permit us to state that Dr. Fullam has worked out a technique whereby he is able to roughly estimate quantitatively differences between different lots of cigarettes with respect to the amount of asbestos particles coming over in the smoke. In other words, he smokes several cigarettes selected from each sample and passes the smoke into a small acetone trap. He then centrifuges this acetone in such a manner as to throw out and separate any suspended solid particles. From this conglomeration of solid material, he quantitatively removes a small fraction to spread over his specimen screens. After the screens are so prepared, he then scans them with his electron microscope, counting the number of meshes in his screening that he has to look at before finding a single particle of asbestos. Thus, and since everything up to this point is at least semi-quantitative, the smoke containing the least amount of asbestos requires scanning of the highest number of screen meshes, or inversely, when he only needs to look at a few meshes to find a particle of asbestos, it follows that such smoke is the most heavily contaminated with asbestos particles. In the attached table we have arranged the 18 samples covered in his report in the order of quality, the best sample being first, and the worst sample last. The table also includes a brief description of how the particular sample in question was prepared.

We have carefully studied the data in question and must admit that it makes very little sense. We presume that you will agree. As a matter of fact, it makes so little sense that we somewhat question the advisability of sending him additional samples which have been accumulated in recent weeks. We feel

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this way particularly since it is our intention to eliminate the use of asbestos in the very near future. However, if it were not for the money involved, it might be interesting to go ahead and submit the additional samples in question in order to acquire a background of information which someday in the future might be useful.

Any comment which you may care to make regarding the above will be welcome.

Very truly yours,

P. LORILLARD COMPANY

H. B. Parmale, Ph.D.
Director of Research

HBP:ics

Att.

cc: Mr. R. J. Lurvey

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No. of Screen
Fields Examined
to Find One (1)
Particle of
Asbestos

Sample
No.

Description of Sample

13	45% Plastecs, 1-E-10, Roll 4, Rods heated in oven, Lurvey letter 10/7/54	55
10	45% H & V Plasticized Acetate, 1-E-9, Roll 482, no heat, Lurvey letter 9/29/54	54
18	45% Plastecs, 1-E-10, Roll 4, no heat, Lurvey letter 10/7/54	33
8	20% H & V Plasticized Acetate, 1-E-9, Roll 459, Rods heated in oven, Lurvey letter 9/29/54	25
12	45% H & V Plasticized Acetate, 1-E-9, Roll 483, Roll Guaranteed, Lurvey letter 9/29/54	24
15	45% Plastecs, 1-E-10, Roll 5, Roll Guaranteed, Lurvey letter 10/7/54	22
1	Gelatin sprayed web	22
16	20% Plastecs, 1-E-10, Roll 2, Roll Guaranteed, Lurvey letter 10/7/54	21
4	Cotton replaced with Vinylon HH, 1-E-8, Roll 402, no heat, Lurvey letter 9/21/54	19
14	20% Plastecs, 1-E-10, Roll 1, Rods heated in oven, Lurvey letter 10/7/54	16
3	H & V Plasticized Acetate, rods heated in oven	15
2	H & V Plasticized Acetate, no heat	11
5	Cotton replaced with Vinylon HH, 1-E-8, Roll 402, rods heated in oven, Lurvey letter 9/21/54	8
17	20% Plastecs, 1-E-10, Roll 1, no heat, Lurvey letter 10/7/54	8
11	45% H & V Plasticized Acetate, 1-E-9, Roll 482, rods heated in oven, Lurvey letter 9/29/54	7
9	Cotton replaced with Vinylon HH, 1-E-8, Roll 402, Roll Guaranteed, Lurvey letter 9/21/54	7
7	20% H & V Plasticized Acetate, 1-E-9, Roll 459, no heat, Lurvey letter 9/29/54	5
6	20% H & V Plasticized Acetate, 1-E-9, Roll 460, Roll Guaranteed, Lurvey letter 9/29/54	2

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Description of Sample

Number
of Screens
Fields
Examined
To find
one (1)
Particle,
Asbestos

Sample

No.

13	45% Plastec, 1-E-10, Roll 4, Rods Heated in oven, Lunvey Letter 10/7/54	55
10	45% H+V Plasticized Acetate, 1-E-9, Roll 482, No Heat	54
18	45% Plastec, 1-E-10, Roll 4, No Heat	33
8	20% H+V Plasticized Acetate, 1-E-9, Roll 459, Rods Heated in oven	25
12	45% H+V Plasticized Acetate, 1-E-9, Roll 483, Roll Guarded	24
15	45% Plastec, 1-E-10, Roll 5, Roll Guarded	22
1	Gelatin sprayed web	22
16	20% Plastec, 1-E-10, Roll 2, Roll Guarded, Lunvey Letter 10/7/54	21
4	Cotton replaced with Vinylon HH, 1-E-8, Roll 402, No Heat	19
14	20% Plastec, 1-E-10, Roll 1, Rods Heated in oven	16
3	H+V Plasticized Acetate, Rods heated in oven	15
12	H+V Plasticized Acetate, No Heat	11
15	Cotton replaced with Vinylon HH, 1-E-8, Roll 402, Rods Heated in oven, Lunvey Letter 7/2/54	8
17	20% Plastec, 1-E-10, Roll 1, No Heat	8
11	45% H+V Plasticized Acetate, 1-E-9, Roll 482, Rods Heated in oven	7
16	Cotton replaced with Vinylon HH, 1-E-8, Roll 402, Roll Guarded	7
17	20% H+V Plasticized Acetate, 1-E-9, Roll 459, No Heat	5
9	20% H+V Plasticized Acetate, 1-E-9, Roll 460, Roll Guarded	2