

followed, with measurements being made at right angles to the longest diameters.

TABLE III—EXAMPLE OF METHOD USED IN THE CALCULATION OF AVERAGE LONGITUDINAL DIAMETER

Magnification—2000 135 Fields					Magnification—10,000 112 Fields			
mm.	u	f	f ₁	f ₁ x u	mm.	u	f	f x u
10	5.0	21	0.69615	3.48075	3	0.3	37	1.11
12	6.0	7	.23206	1.39230	4	0.4	37	1.48
13	6.5	3	.09945	0.64642	5	0.5	38	1.90
14	7.0	4	.13280	0.92820	6	0.6	7	0.42
15	7.5	12	.39760	2.28350	7	0.7	2	0.14
16	8.0	1	.03315	0.26520	8	0.8	10	5.00
17	8.5	1	.03315	0.23178	9	0.9	1	0.90
18	9.0	8	.26520	2.38680	10	1.0	23	2.30
20	10.0	9	.29835	2.98350	12	1.2	4	4.50
21	10.5	1	.03315	0.34807	13	1.3	1	1.30
22	11.0	3	.09945	1.09395	15	1.5	11	1.65
23	11.5	2	.06630	0.76245	20	2.0	12	24.00
24	12.0	1	.03315	0.39780	21	2.3	2	4.60
25	12.5	16	.53040	6.57000	25	2.5	2	5.00
27	13.5	1	.03315	0.44753	30	3.0	7	21.00
28	14.0	1	.03315	0.46410	35	3.5	4	14.00
29	14.5	1	.03315	0.45067	40	4.0	1	4.00
30	15.0	8	.26520	3.97800	45	4.5	1	4.50
32	16.0	1	.03315	0.53040	Total 200 101.00			
35	17.5	9	.29835	5.22112	mm. = Length of image in millimeters. u = Length of particle in microns. f = Frequency $f_1 = \frac{112 \times f}{135 \times (5)^2}$ Average Diameter = $\frac{\sum (f \times u) + \sum (f_1 \times u)}{\sum f + \sum f_1}$ = 1.33 microns.			
36	18.0	1	.03315	0.59670				
37	18.5	1	.03315	0.61328				
38	19.0	2	.06630	1.25970				
39	19.5	2	.06630	1.29225				
40	20.0	13	.43065	8.61800				
42	21.0	1	.03315	0.69615				
43	21.5	1	.03315	0.71272				
45	22.5	3	.09945	2.23763				
47	23.5	1	.03315	0.77908				
50	25.0	4	.13280	3.31500				
53	27.5	6	.16575	4.55812				
60	30.0	2	.06630	9.15600				
63	31.5	1	.03315	1.04423				
65	32.5	5	.16575	5.38683				
67	33.5	1	.03315	1.11062				
70	35.0	4	.19890	6.97150				
73	36.5	1	.03315	1.20997				
75	37.5	2	.06630	2.46625				
80	40.0	2	.06630	2.65200				
85	42.5	2	.06630	2.81775				
95	47.5	1	.03315	1.57492				
100	50.0	1	.03315	1.65750				
110	55.0	4	.13280	7.29200				
120	60.0	1	.03315	1.96800				
130	65.0	1	.13280	8.61900				
140	70.0	2	.06630	4.64100				
160	80.0	3	.09945	7.96800				
170	85.0	1	.03315	2.81775				
175	87.5	1	.03315	2.90062				
180	90.0	1	.03315	2.97950				
200	100.0	1	.03315	3.31500				
210	105.0	1	.03315	3.48025				
230	115.0	1	.03315	3.81225				
240	120.0	3	.09945	11.93400				
265	132.5	1	.03315	4.39237				
330	165.0	1	.03315	5.46975				
370	185.0	1	.03315	6.13225				
Total 200 6.63000 174.11063								

Results—Particle size determinations were made on samples of the dust collected at various stages in the process of manufacture but no appreciable variation was found. However, there was a marked difference in the average particle diameter of the dust from the two general grades of asbestos fiber. The calculated longi-