

REPORT OF TEST OF 4 SAMPLES OF "POSITIVE SEAL" WATERPROOFING FELT FROM A SHIPMENT OF 1000 ROLLS RECEIVED AT HACKENSACK PORTAL FOR USE IN BERGEN HILL TUNNELS ON DECEMBER 16th<sup>07</sup>. FROM THE BARBER ASPHALT CO.

Tensile strength lbs. per linear inch:

	Sat. & Coated #1	expected #2	expected #3	expected #4	expected
Lengthwise	35.	52.8	34.4	46.4	41.
Crosswise	24.3	24.3	22.6	21.3	25.3
extracted felt					
Lengthwise	25.	42.2	22.9	37.1	23.4
Crosswise	17.3	21.1	14.7	18.6	16.1

Weight of material lbs. per 100 sq. ft.

	#1	#2	#3	#4
	21.19	21.49	19.78	20.25
wood dust	.58	.46	.52	.55
felt sat. & coated	20.61	21.03	19.26	19.70
wool	1.47	1.33	1.55	1.60
vegetable fibre	4.56	3.97	4.32	4.23
ash	.59	.48	.60	.63
Thickness sat. & Coated	.041 in	.042	.041	.041
ext. felt	.021	.020	.021	.020

Calculating the results according to the specifications:

	#1	#2	#3	#4	required
Wgt. of felt sat. & coated	20.61 lbs.	21.03	19.26	19.70	12 - 14
ext. felt	6.03 "	5.30	5.85	5.83	5 - 6
Wgt. of bitumens + wgt.					
ext. felt	2.42	2.91	2.29	2.38	1.25- 1.75
S. L.	4.1	4.3	4.	3.8	greater than 7
S. C.	2.9	2.8	2.8	2.6	" " 3-1/2
Increase in tensile strength when saturated & coated over extracted felt					
Lengthwise	40.%	50.2	75.2	70.4	not less than 25%
Crosswise	40.5%	53.7	57.1	58.9	" " " 15%
wool in ext. felt	25.15%	25.33	25.99	27.42	" " " 25%
ash in ext. felt	9.64%	8.98	10.32	10.70	" over 5%
Wgt. of wood dust 100					
sq. feet	.58 lbs.	.46	.52	.55 "	" .50 lbs.
State of saturation	complete	complete	complete	complete	complete
Bitumens treated 250° F					
10 hours	plastic	plastic	plastic	plastic	plastic

This felt is saturated with asphalt, with two skin coats and a large amount of wood dust. The extracted felt is of average thickness. The skin coats are very thick making the finished material of unusual thickness. The felt has about 10% of ash, about 5% more than the specified allowance.