

RePlay Permeability #2 Asphalt Materials

		Untreated Samples			Treated Samples		
Specimen I.D.		I	II	III	4	5	6
Inside cross sectional of the buret, cm ²	a =	8.00	8.00	4.00	5.00	6.00	7.00
Average thickness of the test specimen, cm	L =	3.00	2.90	3.30	3.60	3.10	2.80
Average diameter of test specimen		15.20	15.20	15.20	15.20	15.20	15.20
Average cross-sectional area of test specimen, cm ²	A =	725.83	725.83	725.83	725.83	725.83	725.83
Elapsed time between h ₁ and h ₂ , s	t =	60.0	31.0	900.0	343.0	900.0	900.0
Initial buret reading, mm		631.00	631.00	631.00	631.00	631.00	631.00
Final buret reading, mm		0.00	0.00	41.00	0.00	5.00	8.00
Initial head across the test specimen, cm	h ₁ =	86.58	86.48	86.88	87.18	86.68	86.38
Final head across the test specimen, cm	h ₂ =	23.48	23.38	27.88	24.08	24.08	24.08
Temperature of water, °C		25.0	25.0	25.0	25.0	25.0	25.0
Temperature correction for viscosity of water	t _c =	0.89	0.89	0.89	0.89	0.89	0.89
$k=(aL/At)\ln(h_1/h_2)t_c$							
Coefficient of Permeability (x10⁻⁵ cm/s)**		64	120	2	8	3	3

*Testing performed by Heritage Research Group

**Lower numbers indicate decreased permeability

Specimen I.D.		I	II	III	4	5	6
Coefficient of Permeability (x10 ⁻⁵ cm/s)**		64	120	2	8	3	3