

Pavement Infiltration Test Results
 E.P. Henry EcoCobble Permeable Segmental Pavements
 G&A Project No. 2010-10050
 November 2, 2011

EcoCobble 6"x6" with No. 8 Aggregate Joint Infill – Test Date – 3/2/11

Prewetting (8 lbs. of water)	Test 1 (40 lbs. of water)	Test 2 (40 lbs. of water)	Average Infiltration Rate (in./hr.)
18 seconds*	85 seconds	73 seconds	448.7
	Infiltration Rate per ASTM C 1701	Infiltration Rate per ASTM C 1701	
	414.6 in./hr.	482.8 in./hr.	

EcoCobble 6"x9" with No. 8 Aggregate Joint Infill – Test Date – 3/2/11

Prewetting (8 lbs. of water)	Test 1 (40 lbs. of water)	Test 2 (40 lbs. of water)	Average Infiltration Rate (in./hr.)
14 seconds*	65 seconds	65 seconds	542.2
	Infiltration Rate per ASTM C 1701	Infiltration Rate per ASTM C 1701	
	542.2 in./hr.	542.2 in./hr.	

*If during prewetting 8 pounds (1 gallon) of water infiltrates in less than 30 seconds, the infiltration test shall be conducted with 40 pounds of water.

ASTM C 1701 Infiltration Rate Calculation

$$I = (KM) / (D^2t)$$

- Where:
- I* = Infiltration Rate (in./hr.)
 - M* = Mass of Infiltrated Water (lbs.)
 - D* = Inside Diameter of Infiltration Ring (in.)
 - t* = Time Required for Measure Amount of Water to Infiltrate (sec.)
 - K* = 4,583,666,000 in SI Units or 126,870 in (inch/pound) units

EcoCobble 6"x6" with No. 9 Aggregate Joint Infill – Test Date – 3/2/11

Prewetting (8 lbs. of water)	Test 1 (40 lbs. of water)	Test 2 (40 lbs. of water)	Average Infiltration Rate (in./hr.)
23 seconds*	139 seconds	128 seconds	264.4
	Infiltration Rate per ASTM C 1701	Infiltration Rate per ASTM C 1701	
	253.5 in./hr.	275.3 in./hr.	

EcoCobble 6"x9" with No. 9 Aggregate Joint Infill – Test Date – 3/2/11

Prewetting (8 lbs. of water)	Test 1 (40 lbs. of water)	Test 2 (40 lbs. of water)	Average Infiltration Rate (in./hr.)
26 seconds*	158 seconds	152 seconds	227.5
	Infiltration Rate per ASTM C 1701	Infiltration Rate per ASTM C 1701	
	223.0 in./hr.	231.9 in./hr.	

*If during prewetting 8 pounds (1 gallon) of water infiltrates in less than 30 seconds, the infiltration test shall be conducted with 40 pounds of water.

ASTM C 1701 Infiltration Rate Calculation

$$I = (KM) / (D^2t)$$

- Where:
- I* = Infiltration Rate (in./hr.)
 - M* = Mass of Infiltrated Water (lbs.)
 - D* = Inside Diameter of Infiltration Ring (in.)
 - t* = Time Required for Measure Amount of Water to Infiltrate (sec.)
 - K* = 4,583,666,000 in SI Units or 126,870 in (inch/pound) units

EcoCobble 6"x6" with River Gravel Joint Infill – Test Date – 3/2/11

Prewetting (8 lbs. of water)	Test 1 (40 lbs. of water)	Test 2 (40 lbs. of water)	Average Infiltration Rate (in./hr.)
10 seconds*	42 seconds	50 seconds	771.9
	Infiltration Rate per ASTM C 1701	Infiltration Rate per ASTM C 1701	
	839.1 in./hr.	704.8 in./hr.	

EcoCobble 6"x9" with River Gravel Joint Infill – Test Date – 3/2/11

Prewetting (8 lbs. of water)	Test 1 (40 lbs. of water)	Test 2 (40 lbs. of water)	Average Infiltration Rate (in./hr.)
7 seconds*	49 seconds	49 seconds	719.2
	Infiltration Rate per ASTM C 1701	Infiltration Rate per ASTM C 1701	
	719.2 in./hr.	719.2 in./hr.	

*If during prewetting 8 pounds (1 gallon) of water infiltrates in less than 30 seconds, the infiltration test shall be conducted with 40 pounds of water.

ASTM C 1701 Infiltration Rate Calculation

$$I = (KM) / (D^2t)$$

Where:

- I* = Infiltration Rate (in./hr.)
- M* = Mass of Infiltrated Water (lbs.)
- D* = Inside Diameter of Infiltration Ring (in.)
- t* = Time Required for Measure Amount of Water to Infiltrate (sec.)
- K* = 4,583,666,000 in SI Units or 126,870 in (inch/pound) units