1 July 2014

Committee C15 on Manufactured Masonry Units
Subcommittee C15.04 on Research

Research Report: C15-1000

Interlaboratory Study to Establish Precision Statements for ASTM C1781-14, Test Method for Surface Infiltration Rate of Permeable Unit Pavement Systems

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1. Introduction:

Interlaboratory Study 1012 was conducted to establish a precision statement for C1781, Test Method for Surface Infiltration Rate of Permeable Unit Pavement Systems. This work was conducted at Middle Tennessee State University and was analyzed under ASTM ILS # 1012. In this study, test pads of permeable unit pavement systems were constructed with 14 different concrete paver types and each of the 14 different pavement systems were tested with three different sized drainage aggregates meeting the grading requirements of Size Numbers 8, 9 and 10 in accordance with ASTM C33-13, Standard Specification of Concrete Aggregates [12] (which are identical to those in ASTM D448, Standard Classification for Sizes of Aggregate for Road and Bridge Construction [13]). A total of 42 different paver unit/drainage aggregate systems were tested.

2. Test Method:

The Test Method used for this ILS is C1781-14. To obtain a copy of C1781, go to ASTM's website, www.astm.org, or contact ASTM Customer Service by phone at 610-832-9585 (8:30 a.m. - 4:30 p.m. Eastern U.S. Standard Time, Monday through Friday) or by email at service@astm.org.

3. Participating Laboratories:

The following laboratories participated in this interlaboratory study:

2 Operators from:
Middle Tennessee State University
Po Box 19
Murfreesboro, TN 37132
United States

4. **Description of Samples:**

There were 42 different paver unit/drainage aggregate systems used for this study. Each system was supplied, prepared and distributed by Glenn Herold of Oldcastle - Belgard. Below is a list of the samples with the corresponding supplier:

Set #1- #10 Stone in Joints

Set #1- #8 Stone in Joints

Set #1- #9 Stone in Joints

Set #10- #10 Stone in Joints

Set #10- #8 Stone in Joints

Set #10- #9 Stone in Joints

Set #11- #10 Stone in Joints

Set #11- #8 Stone in Joints

Set #11- #9 Stone in Joints

Set #12- #10 Stone in Joints

Set #12- #8 Stone in Joints

Set #12- #9 Stone in Joints

Set #13- #10 Stone in Joints

Set #13- #8 Stone in Joints

Set #13- #9 Stone in Joints

Set #14- #10 Stone in Joints

Set #14- #8 Stone in Joints

Set #14- #9 Stone in Joints

Set #2- #10 Stone in Joints

Set #2- #8 Stone in Joints

Set #2- #9 Stone in Joints

Set #3- #10 Stone in Joints

Set #3- #8 Stone in Joints

Set #3- #9 Stone in Joints

Set #4- #10 Stone in Joints

Set #4- #8 Stone in Joints

Set #4- #9 Stone in Joints

Set #5- #10 Stone in Joints

Set #5- #8 Stone in Joints

Set #5- #9 Stone in Joints

Set #6- #10 Stone in Joints

Set #6- #8 Stone in Joints

Set #6- #9 Stone in Joints