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**Test methods for the performance of pervious pavement
products**

透水路面制品性能试验方法

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13.1 Instruments, Equipment and Materials

13.2 Test Procedure

2 Normative references

This document does not contain any normative references.

4. Test conditions The laboratory ambient temperature was $(20 \pm 5)^{\circ}\text{C}$ and the relative humidity was $(50 \pm 15)\%$.

5 Specimen Preparation

5.1 All samples shall be randomly selected from permeable pavement products.

5.2 For dimensional deviations and appearance quality test pieces, the original specimens should be used directly.

5.3 For dry apparent density and continuous porosity specimens, the specimen should be used directly. When the specimen volume cannot be calculated by measuring the external dimensions, the specimen... Sample preparation can be achieved by cutting or core drilling. Randomly cut right-angled hexahedral specimens from different samples or randomly drill straight cylindrical specimens vertically from the top surface of the sample. The angle between the upper and lower surfaces and the side surfaces of the specimen should be $(90 \pm 1)^{\circ}$. There should be no missing edges or corners. All surfaces of the right-angled hexahedron specimen should be flat.

5.4 For compressive strength and splitting tensile strength test specimens, it is advisable to use the original specimens directly, or to randomly cut right-angled hexahedral specimens from different specimens. The included angle between the upper and lower surfaces and the side surfaces should be $(90 \pm 1)^{\circ}$, and there should be no missing edges or corners. The upper and lower pressure surfaces of the specimen should be flat; otherwise, a flat surface should be used. Cement mortar or high-strength gypsum should be used for leveling, and the thickness of the leveling layer should not exceed 5mm.

5.5 For flexural strength test specimens, it is advisable to use the original specimen directly, or to randomly cut right-angled hexahedral specimens from different specimens, with the upper and lower surfaces and side surfaces being tested. The included angle between the two surfaces should be $(90 \pm 1)^{\circ}$, and there should be no missing edges or corners. If the top surface of the specimen is uneven, it should be ground smooth. Add [something] in the thickness direction of the specimen. Cut a flat surface with a width of not less than 30mm in the middle of the load, and the cut surface should be parallel to the back side.

5.6 Permeability test specimens were prepared using core drilling. Straight cylindrical specimens were randomly drilled vertically from the top surface of different samples, and

the permeability between the upper and side surfaces was measured. The included angle should be $(90\pm1)^\circ$, and there should be no missing edges or corners.

5.7 The test specimens for the air-freezing and water-thawing method for antifreezing performance shall comply with the provisions of

5.8 Specimens for the water-freeze-thaw test of freeze resistance should be prepared by cutting, including standard specimens and alternative specimens. Specimens should be randomly cut from different samples. For standard cube or right-angled hexahedral specimens, the edges should be straight, the included angle between adjacent faces should be $(90\pm1)^\circ$, and there should be no missing edges or corners. The upper and lower pressure surfaces should be flat; otherwise, cement mortar or high-strength gypsum should be used for leveling, and the thickness of the leveling layer should not exceed 5mm. When a test specimen cannot meet the requirements for making a standard specimen, an alternative specimen may be used.

5.9 The permissible deviations in size, shape, and quantity of specimens for physical and mechanical properties and frost resistance shall conform to the provisions of Table 1.

6.1 Instruments and Equipment

6.1.1 Steel ruler. graduation value is 1mm.

6.1.2 Steel measuring tape. graduation value is 1mm.

6.1.3 Calipers. graduation value not greater than 0.02mm.

6.1.4 Brick calipers. graduation value not greater than 0.5mm.

6.1.5 Right-angle straightedge. graduation value is 1mm.

6.1.6 Feeler gauge. graduation value not greater than 0.02mm.

6.2 Test Methods

6.2.1 Length and Width At a position 10 mm away from and parallel to the two edges on the top surface of the right-angled hexahedron specimen, measure the length and length using a steel ruler or steel tape measure. Width (see Figure 1), read to 1 mm. The length and width of the specimen are expressed as the arithmetic mean of the two measurements, rounded to 1 mm.

6.2.2 Thickness The thickness was measured with calipers at the midpoint of the length and width of the right-angled hexahedral specimen, 10 mm from the edge (see...). (Figure 1), readings to

0.1 mm. The thickness of the specimen is expressed as the arithmetic mean of the four measurements, rounded to

0.1 mm.

6.2.3 Diagonal Length Use a steel ruler or steel tape measure to measure the lengths of the two diagonals on the top surface of the right-angled hexahedron specimen, and read the values to the nearest 1 mm.

6.2.4 Perpendicularity in the thickness direction Measure the gap between the top surface and the four included angles of the four sides of the right-angled hexahedron specimen using a right-angle straightedge and feeler gauge (see Figure 2), and take the readings to the specified values. 0.5mm.

6.2.5 Right angle Use a right-angle straightedge and feeler gauge to measure the gap between the four adjacent side angles of the right-angled hexahedron specimen (see Figure 3), and read the value to

0.5 mm.

6.2.6 Flatness Place the brick caliper foot arbitrarily on the top surface of the specimen, slide the measuring scale in the middle of the brick caliper, and measure the maximum value of the convex or concave surface on the top surface. (See Figure 4), read the value to

0.5 mm. For flatness measurement, two measuring lines should be selected, and the included angle between the planes of the two measuring lines should not be less than 30°.

6.3 Experimental Data Processing

6.3.1 The deviation of the length or width of the specimen is expressed as the difference between the measured length or width and the specified size, rounded to 1 mm.

6.3.2 The thickness deviation of the specimen is expressed as the difference between the thickness measurement value and the specified size, rounded to

0.1 mm.

6.3.3 The thickness difference of a single piece is expressed as the difference between the maximum and minimum values of the four thickness measurements, rounded to

0.1 mm.

6.3.4 The difference in the diagonal length of the specimen is expressed as the difference in the length of the two diagonals, rounded to 1 mm.

6.3.5 Perpendicularity in the thickness direction is expressed as the maximum of the four measurements, rounded to

0.5 mm.

6.3.6 The right angle is expressed as the maximum of the four measurements, rounded to 0.5 mm.