

(INACTIVE)  
OHD L-35  
**METHOD OF TEST FOR  
MOISTURE VAPOR PERMEABILITY OF TREATED CONCRETE**

- I. **SCOPE.** This method covers the determination of the vapor permeability of Portland Cement concrete treated with a penetrating water repellent treatment solution.
- II. **TEST SAMPLES.** A set of two (2) concrete blocks 8 x 8 x 2 inches (20 x 20 x 5 cm) shall be cast under laboratory conditions. The concrete shall meet the requirements for Class "A" concrete as specified in Section 701 of the Standard Specifications except the coarse aggregate shall be #7 gradation. The blocks shall have a broom finish on one face. The blocks shall be cured for seven (7) days in accordance with AASHTO T 126. Each block shall be tested separately.
- III. **PROCEDURE.**
- A. After curing, the block shall be oven dried at  $230^{\circ} \pm 9^{\circ}$  F ( $110^{\circ} \pm 5^{\circ}$  C) to constant weight. This weight shall be recorded as "A" (dry weight of block).
  - B. The block shall be allowed to cool to room temperature and then placed in deionized water for 48 hours. The block shall be brought to a surface dry condition and weighed. This weight shall be recorded as "B" (wet weight of block).
  - C. Coat the block on all six (6) sides with the penetrating water repellent treatment solution at the manufacturer's recommended application rate.
  - D. Weigh the coated block and record this weight as "C" (wet weight of coated block). Place the specimen in an oven at  $230^{\circ} \pm 9^{\circ}$  F ( $110^{\circ} \pm 5^{\circ}$  C) and dry to constant weight. Record this weight as "D" (dry weight of coated block).
- IV. **CALCULATIONS.** Calculate the percent moisture loss as follows:

$$G = \% \text{ Moisture Loss} = \frac{C - D}{B - A} \times 100$$

Average the two samples. If the average of  $G \geq 99.5\%$ , the treated concrete has retained its moisture vapor permeability.