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JAPANESE INDUSTRIAL STANDARD

Testing Methods for Determination of the Water Vapour Transmission Rate of Moisture-Proof Packaging Materials (Dish Method)

JIS Z 0208 —1976

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1. Scope

This Japanese Industrial Standard specifies the method using the water vapour transmission dish for testing the water vapour transmission rate of the moisture-proof packaging materials such as plastic film, converted paper and the like.

2. Definition

The water vapour transmission rate is the quantity of vapour passing through the unit area of filmy substance for the definite hour. In this standard, when constituting the boundary surface by the moisture-proof packaging materials at the temperature of 25°C or 40°C, and keeping the air of one side at a relative humidity of 90 % and the air of the other side at the dry state by moisture absorbent, the value having converted the mass (g) passing through this boundary surface for 24 h into the value per 1 m² shall be defined as the water vapour transmission rate.

Because the affects of temperature and humidity on the water vapour transmission rate are not simple, the rate having been estimated from the measured value under the temperature and the humidity condition different from the testing condition as specified in this standard cannot be regarded as the water vapour transmission rate termed in this standard.

3. Apparatus

3.1 Water Vapour Transmission Dish The water vapour transmission dish, hereinafter referred to as the "dish", shall meet the following conditions. An example of the dish and its accessories is shown in Attached Figure.

- (1) The area of water vapour transmission shall be not less than 25 cm² and be capable of specifying its area clearly. The area of water vapour transmission shall be calculated from the inner diameter of the ring.
- (2) The quality of material shall have no permeability for the vapour and produce no corrosion and the like under the testing condition.
- (3) The dish shall have enough rigidity not to be transformed during operation.
- (4) The peripheral part of test piece shall be sealed completely.

Applicable Standards:

JIS K 8123-Calcium Chloride, Anhydrous

JIS Z 8401-Rules for Rounding off of Numerical Values

JIS Z 8801-Sieves for Testing Purposes