

KES

**Testing Method for
Water Vapor Permeability
of Leather**

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Contents

- 1. Scope of Application**
- 2. Definition of Terms**
- 3. Sample Collection Method and Test Piece**
- 4. Operation**
- 5. Calculation Method**



1. Scope of Application

This standard shall specify the test method of vapor permeability for all leather types.

2. Definition of Terms

Permeability implies the amount of vapor passed through membrane material of unit area for given time. In this standard permeability is determined from the value calculated of vapor passing through leather in mg per unit area cm^2 of leather. The relative humidity specified in this standard is $80\pm 5\%$ at temperature $30\pm 1\text{ }^\circ\text{C}$. Given time frame for this standard is one hour.

3. Sample collection method and Test piece

Collect circular test piece of diameter 64 mm from 1 sheet of test material from JIS K 6550 (Leather Test Method) ⁽¹⁾ Leave in constant humidity and temperature chamber (Temperature $30\pm 1\text{ }^\circ\text{C}$, relative $80\pm 5\%$) for 48 hours.

Note ⁽¹⁾ Make sure there is no damage done on the surface.

4. Apparatus and Chemicals

4.1 Moisture-intrusion cap

The moisture-intrusion cap should satisfy the following conditions. Cap and its parts are illustrated in the Figure.

- (1) Moisture intrusion area should be $28\sim 30\text{ cm}^2$
- (2) Sealing of test piece seam should be perfect and not affect the moisture intrusion area.

4.2 Constant Temperature and Humidity Device

Use a device that can circulate the air at temperature $30\pm 1\text{ }^\circ\text{C}$, relative humidity at $80\pm 5\%$.

Note : Ammonium sulfate can be used to control relative humidity.