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Plastic films vapour barrier for residential use

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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law:

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Plastic films vapour barrier for residential use

1 Scope This Japanese Industrial Standard specifies the plastic films to be used when the vapour barrier layer is especially constituted in order to prevent the thermal insulated structure from moisture condensation mainly in the case of a residence with thermal insulated structure.

Remarks: The units and numerical values given in { } in this Standard are based on the traditional units and are appended for informative reference.

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. For these normative references, only the editions of the year described constitute the provisions in this Standard, and revised editions and amendments thereafter are not applied.

JIS A 1324 : 1995	<i>Measuring method of water vapor permeance for building materials</i>
JIS A 6111 : 1996	<i>House wrapping sheets</i>
JIS A 9521 : 1994	<i>Man made mineral wool thermal insulation materials for dwellings</i>
JIS K 6783 : 1994	<i>Ethylene/vinyl acetate copolymer films for agriculture</i>
JIS K 7129 : 1992	<i>Testing methods for water vapor transmission rate of plastic film and sheeting (instrument method)</i>
JIS K 7212 : 1995	<i>General rules for tests for thermal ageing properties of thermoplastics in the form of sheet by means of ovens</i>
JIS K 8575 : 1994	<i>Calcium hydroxide</i>
JIS Z 0208 : 1976	<i>Testing methods for determination of the water vapour transmission rate of moisture-proof packaging materials (dish method)</i>
JIS Z 8401 : 1961	<i>Rules for rounding off of numerical values</i>
JIS Z 8703 : 1983	<i>Standard atmospheric conditions for testing</i>
JIS Z 9001 : 1980	<i>General rules for sampling inspection procedures</i>

3 Type The type of film shall be as follows.

3.1 Classification by constitution of material The classification by constitution of material shall be in accordance with Table 1.

Table 1 Classification by constitution of material

Classification	Constitution of material
Single film	Film composed of a single plastic material such as polyethylene film.
Composite film	Film compounded of a single film with other different single film in quality and/or other plastic material (') different from the film in shape, Film with a vapour deposit layer of metal, etc. in a part of component layers shall be included.

Note (1) Knitted and woven cloth of stretched polyethylene tape, non-woven cloth of polyethylen split fiber and so on are applicable.

3.2 Classification by permeability (vapour resistance) The classification by permeability (vapour resistance) shall be as follows (refer to Table 2).

- a) Class A
- b) Class B

4 Quality The quality of film shall be in accordance with Table 2.

Table 2 Quality

Item		Class A	Class B	Applicable test subclause
Permeability (vapour resistance) $\text{m}^2 \cdot \text{s} \cdot \text{Pa} / \text{ng}$ $\{\text{m}^2 \cdot \text{h} \cdot \text{mmHg} / \text{g}\}$		82×10^{-3} {170} min.	144×10^{-3} {300} min.	7.3
Strength (holding strength of bonding needle) N {kgf}	23 °C	15 {1.53} min.		7.4.2 a)
	- 5 °C	15 {1.53} min.		7.4.2 b)
Durability	Residual rate of longitudinal elongation at break after heat treated (%)	50 min.		7.5.1
	Residual rate of longitudinal elongation at break after alkali-treated (%)	80 min.		7.5.2
Ignition property		No ignition		7.6

5 Appearance For the appearance of film, the test shall be carried out according to 7.7 and the defects likely to impair performance such as fissure, hole, etc. shall not be allowed.

6 Dimension

6.1 Thickness The thickness of film and the tolerance shall conform to Table 3 after being tested according to 7.2.

Table 3 Thickness

Thickness		mm	0.05	0.10	0.15	0.20
Tolerance of thickness %	Single film	± 18				
	Composite film	± 23				
Tolerance of average thickness %	Single film	± 10				
	Composite film	± 13				