



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS A 6111 : 2016

(NTBA/VBURA/JSA)

Vapour breathable underlays

ICS 83.140.10 ; 91.120.30

Reference number : JIS A 6111 : 2016 (E)

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A 6111 : 2016

Date of Establishment: 1996-02-01

Date of Revision: 2016-08-22

Date of Public Notice in Official Gazette: 2016-08-22

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

Technical Committee on Architecture

JIS A 6111 : 2016, First English edition published in 2016-11

Translated and published by: Japanese Standards Association
Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Vapour Breathable Underlay Association (NTBA)/Vapour Breathable Underlays of Roof Association (VBURA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14. Consequently **JIS A 6111:2004** is replaced with this Standard.

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Vapour breathable underlays

1 Scope

This Japanese Industrial Standard specifies vapour breathable underlays to be applied to external walls designed to prevent internal dew condensation of house wall ventilation system and to be applied to roofs, for the purpose of water vapour permeability, protection from water and wind. When used for roofs, the underlays are applied to roof boards.

The comparison table between previous and current editions of this Standard on technically significant revisions is given in Annex A.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

- JIS A 1324 *Measuring method of water vapor permeance for building materials*
- JIS A 1415 *Methods of exposure to laboratory light sources for polymeric material of buildings*
- JIS A 5508 *Nails*
- JIS A 5905 *Fiberboards*
- JIS A 9521 *Thermal insulation materials for buildings*
- JIS B 7516 *Metal rules*
- JIS K 7212 *Plastics — Determination of thermal stability of thermoplastics — Oven method*
- JIS L 1092 *Testing methods for water resistance of textiles*
- JIS L 1096 *Testing methods for woven and knitted fabrics*
- JIS L 1099 *Testing methods for water vapour permeability of textiles*
- JIS P 8117 *Paper and board — Determination of air permeance and air resistance (medium range) — Gurley method*
- JIS S 6035 *Staplers*
- JIS S 6036 *Staples*
- JIS Z 8703 *Standard atmospheric conditions for testing*

3 Types

Vapour breathable underlays shall be classified into the following three types.

- a) Vapour breathable underlay A for external wall
- b) Vapour breathable underlay B for external wall
- c) Vapour breathable underlay for roof

4 Quality

The quality of vapour breathable underlays shall be as given in Table 1.

Table 1 Quality

Performance	Evaluation	Vapour breathable underlay A for external wall	Vapour breathable underlay B for external wall	Vapour breathable underlay for roof	Subclause of applicable test
Water vapour permeability (water vapour resistance) (m ² ·s·Pa/μg)		0.19 max.	0.13 max.	0.65 max.	7.2
Strength	Tensile strength (N)	100 min. in longitudinal and lateral			7.3 a)
	Retention strength of staple (N)	27 min. in longitudinal and lateral		50 min. in longitudinal and lateral	7.3 b)
Ignitability		No ignition			7.4
Water resistance	Hydraulic pressure (kPa)	10 min.			7.5
Durability	Hydraulic pressure (kPa)	8 min.			7.6
	Residual rate of tensile strength (%)	50 min. of initial residual rate in longitudinal and lateral			
	Residual rate of tensile elongation (%)	To be marked.			
Heat contraction	Contraction rate (%)	1.5 max.		1.0 max.	7.7
Wind resistance (transit time) (s)		10 min.		— a)	7.8
Water cut-off of nail hole	Decline of water level	— a)		The average water level for 10 pieces is no more than 5 mm, and none of the nail holes has a total outflow of water.	7.9
Note a) Not specified.					