

Australian/New Zealand Standard®

Pliable building membranes and underlays— Methods of test

Method 6: Surface water absorbency

METHOD

1 SCOPE This test determines the surface water absorbency of a pliable building membrane.

NOTE: This Standard is based on NZS 2295 — 1988, *Building papers (breather type)*.

2 APPARATUS The following apparatus shall be required.

- (a) **Container**—open top with an area of at least 100 cm² and volume at least 1000 mL. The container shall consist of transparent walls, be impermeable and have an inner face non-reactive with water.
- (b) **Distilled water**—at a temperature of 23 ±2°C.
- (c) **Scale**—accurate to 0.1 g.
- (d) **Steel rule**—accurate to 1.0 mm.

3 TEST SPECIMEN The test specimen shall be at least 1000 mm in length in machine direction, and be of full roll width.

4 PROCEDURE The approved method of test for surface water absorbency shall be as follows:

- (a) Cut 5 pieces, each 200 mm square with edges parallel and perpendicular to machine direction. To ensure squareness, the diagonals measurement should be equal to within 2 mm and the sides should be equal to within 1 mm. Alternatively a template to the same limits may be used. The 5 test pieces shall be cut from the test specimen in a diagonal pattern, such that—
 - (i) the full width of the test specimen is uniformly sampled by centring the test pieces at equal distances; and
 - (ii) the test pieces are centred at least 200 mm apart in the machine direction.
- (b) Condition the test pieces at 23 ±2°C and 50 ±5% relative humidity for at least 48 h.
- (c) Weigh each test piece to obtain the unsoaked weight in grams. Calculate the grammage (in g/m²) for each test piece.
- (d) Totally immerse the test pieces in water at 23 ±2°C for at least 24 h.
- (e) Remove from water and cut a square sample of size 100 mm × 100 mm from the centre of the test piece. To ensure squareness the diagonals measurement should be equal to within 2 mm and the sides should be equal to within 1 mm. Alternatively a template to the same limits may be used.

- (f) Totally immerse the sample again and remove immediately. This is to replace any of the surface water that may have been lost during step 4(e).
- (g) Remove from the water and store in a vertical position for approximately 1 min to allow surplus water to drain off.
- (h) Re-weigh each test piece to obtain the soaked weight in grams. Calculate the grammage (in g/m^2) for each test piece.
- (i) Calculate the surface water absorbency (grams per square metre) of each sample as the difference between the soaked grammage (from step 4(h)) and the unsoaked grammage (from step 4(c)).
- (j) Calculate the average surface water absorbency, by averaging the test results.

5 REPORTING The average surface water absorbency, to the nearest 1 g/m^2 , shall be reported.

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