

Australian/New Zealand Standard™

Methods of testing woolpacks for greasy wool**Method 1: Fibrillation of woven, HDPE fabric**

This Standard incorporates Amendment No. 1 (November 2000). The changes arising from the amendments are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure, or part thereof affected.

1 SCOPE

This Standard specifies a procedure for assessing the degree of fibrillation, or longitudinal splitting of tapes in woolpacks made from woven, HDPE fabric.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

2001 Methods of test for textiles

2001.1 Part 1: Conditioning procedures

2001.2.4 Method 2.4: Physical tests—Determination of bursting pressure of textile fabrics—Hydraulic diaphragm method

3 PRINCIPLE

The specimen is clamped over a flexible diaphragm to which pressure is applied causing the fabric to distend to the point of rupture. The ruptured specimen is then compared visually against predetermined photographed specimens, and an assessment rating is given.

4 APPARATUS

The following apparatus is required:

- (a) A conditioning facility with a means of providing and maintaining a standard atmosphere as specified in AS 2001.1.
- (b) A hydraulic diaphragm bursting tester with a bursting capacity of not less than 70 kg/cm² (as described in AS 2001.2.4).
NOTE: A 'Mullen' type tester is suitable.
- (c) A diaphragm of suitable strength and extension characteristics to burst synthetic woolpack material.

5 TEST SPECIMENS

The following shall apply:

- (a) Specimens shall be representative of the sample. No two specimens shall contain the same tapes.

- (b) The size of each specimen shall be not less than 120 mm × 120 mm.
- (c) Seven specimens taken from the woolpack shall be tested. Two specimens shall be taken from each of the woolpack side panels that contain the base seams, one specimen from each of the other two side panels, and one specimen from the base.

6 PROCEDURE

The procedure shall be as follows:

- (a) Condition the specimens from the dry side in the standard atmosphere as described in AS 2001.1. Test the specimens in that atmosphere.
- (b) Ensure that the diaphragm is completely flat, i.e. that the pressure under the diaphragm is completely released.
- (c) Clamp the specimen securely, avoiding any creasing or distortion of the fabric.
- (d) Extend the diaphragm to the level required to rupture the fabric. If more than two fully extended yarns are unbroken in either direction, discard the specimen and test a further specimen in its place.
- (e) Compare each tested specimen with the photographs in Figures 1 to 5, firstly by viewing in the warp direction and then by viewing along the weft direction. Record the grade nearest to which the specimen resembles for the warp direction and weft direction separately.

In the event of any specimen being deemed to fall midway between any two grades, the numerically lower of those two grades shall be reported.
- (f) Test all specimens.
- (g) Repeat the procedures described in Steps (e) and (f) twice by means of two further independent observers.

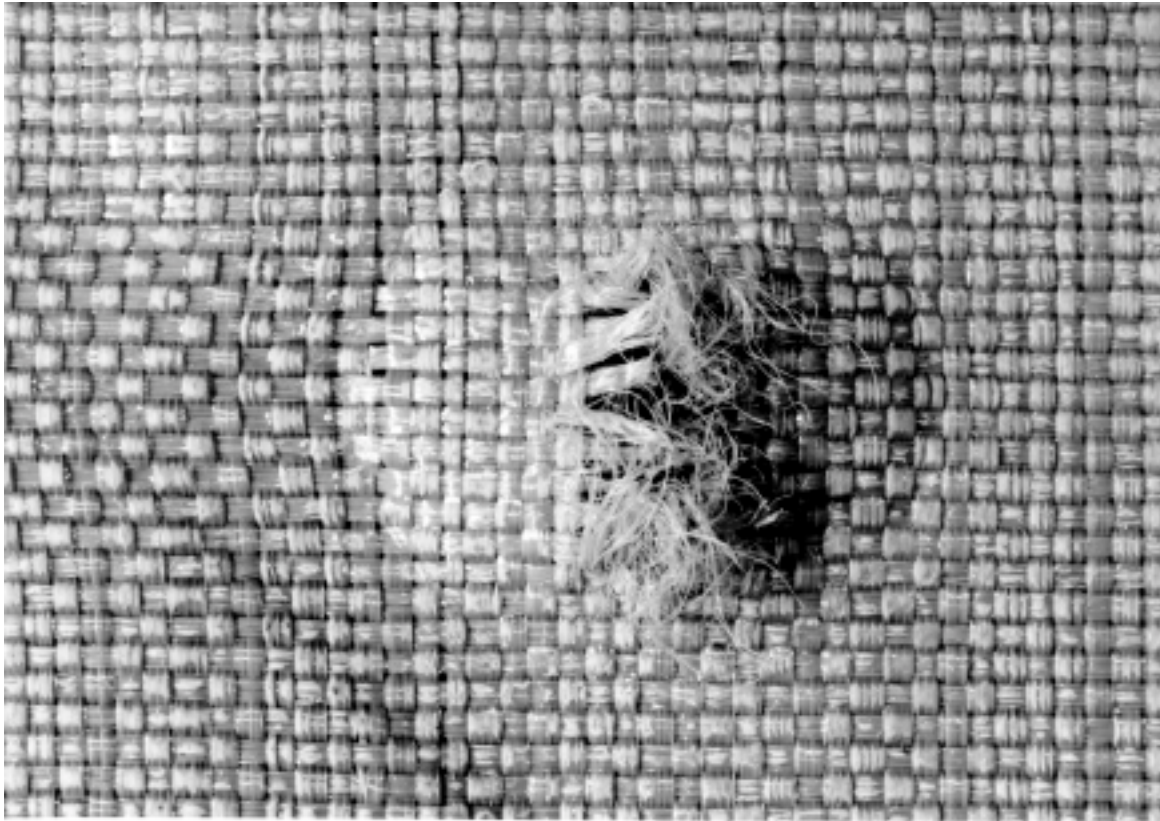
7 CALCULATION OF RESULTS

Calculate, to the first decimal point, the arithmetic mean value of the three sets of results of the seven specimens for both the warp and weft directions separately.

8 REPORT

The following shall be reported:

- (a) The result for the warp-ways direction.
- (b) The result for the weft-ways direction.
- (c) A reference to this test method, i.e. AS/NZS 4547.1.



A1

FIGURE 1 GRADE 1 FIBRILLATION



A1

FIGURE 2 GRADE 2 FIBRILLATION

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