

Australian/New Zealand Standard™

Methods of testing wool packs for greasy wool

Method 2: Adhesion of wool to anti-slip coating

AS/NZS 4547.2

1 SCOPE

This Standard specifies a procedure for determining whether wool will adhere to an anti-slip wool pack coating.

2 PRINCIPLE

The specimen of the wool pack fabric is placed in contact with a thin layer of greasy wool and pressed between heated metal plates. The specimen is then examined for evidence of adhesion between the pack fabric and the greasy wool.

3 APPARATUS

The following apparatus is required:

- A pair of flat metal plates, having suitable dimensions to enable a pack fabric area of 25 cm² to be tested.
- A means of applying a pressure of 50 ± 5 g/cm² to the specimen while it is positioned between the two metal plates.
- A means of heating and maintaining the plate in contact with the pack fabric at 110 ± 5°C.
- A means of indicating the plate surface temperature.
- Greasy wool that is free of obvious burrs and vegetable matter (full-length staple separated lengthwise in half).

4 TEST SPECIMENS

The test specimens shall be as follows:

- The specimen shall be of suitable dimensions to provide a minimum test area of 25 cm² and shall be cut from a section of the wool pack to which anti-slip coating compound has been applied across the total surface.
- No two specimens shall contain the same warp or weft yarns or tapes. Specimens shall be taken at least 100 mm from any edge or seam.
- In the case of made-up packs, two specimens shall be taken from a short side and two specimens shall be taken from the long side. One specimen from each side shall be tested on the outer surface and one specimen from each side shall be tested on the inner surface.

5 PROCEDURE

The procedure shall be as follows:

- Heat the metal plates to a temperature of 110 ± 5°C.

- (b) Place greasy wool fibres as a uniform layer spread out to approximately 1 mm thickness on the specimen to be tested ensuring that the specimen under test is free of wrinkles or folds.
- (c) Cover each test specimen (inside surface) with the tip end of one half of a wool staple and the base of the other half. Trim excess staple off around the edge of the specimen.
- (d) Insert the composite specimen between the heated metal plates and apply a pressure of 50 g/cm².
- (e) Maintain the temperature of the plates in contact with the pack specimen at 110 ±5°C for 5 min.
- (f) Remove the specimen, allow to cool.
- (g) Examine for any tendency of the wool to adhere to the wool pack fabric by gripping wool on front edge and pulling back slowly from the specimen surface.
- (h) If fibres are stuck, inspect to see if it is the weave that is trapping the fibres, or the anti-slip coating. Also, brush to see if the fibres are easily removed.
- (i) Repeat steps (a) to (h) above with the wool fibres placed on the inner surface.

6 REPORT

The following shall be reported:

- (a) Whether there was any melting of the coating.
- (b) Whether or not any adhesion occurred between the test specimen and the greasy wool.
- (c) Report the results for the outer and inner surfaces separately.
- (d) A reference to this test method, i.e. AS/NZS 4547.2.