

# Australian/New Zealand Standard™

## Methods of testing wool packs for greasy wool

### Method 3: Surface frictional properties of fabric

AS/NZS 4547.3

#### 1 SCOPE

This Standard specifies a method for determining the surface frictional properties of wool pack fabric in wet and dry conditions.

#### 2 REFERENCED DOCUMENTS

The following document is referred to in this Standard:

AS

2001 Methods of test for textiles

2001.1 Part 1: Conditioning procedures

2706 Numerical values—Rounding and interpretation of limiting values

#### 3 PRINCIPLE

A specimen is mounted on the surface of a horizontal plane attached to the base of a tensile testing machine. Another specimen of the same fabric is attached to a sled and placed in contact with the first specimen. The sled is connected to the cross head of the tensile testing machine by means of a flexible cord and pulley and the cross head is set in motion. The force required to move the sled across the horizontal plane is recorded as a series of peaks on an autographic chart and the average of the peak forces is determined. Where appropriate, this test method is carried out in wet and dry conditions.

#### 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 tensile testing machine of the constant rate of extension type capable of a minimum cross head speed of 50 mm/min to permit measurements over the range of 0 to 10 N.
- (c) A horizontal plane (see Figure 1) of smooth, flat, steel plate, approximately 600 mm × 200 mm × 12 mm. A sheet of sponge rubber, 400 mm × 200 mm × 5 mm having a Shore A hardness of approximately 15 shall be permanently affixed to the upper surface of the steel plate as shown in Figure 1. A low friction V-pulley shall be mounted in dual bearings on the steel plate in such a position that, during testing, it will be directly below the cross head of the tensile testing machine and at a height to ensure that the flexible cord (see Item (e), when attached to the sled, (see Item (d)) is parallel to the horizontal plane.
- (d) A sled (see Figure 2) consisting of a smooth, flat, steel plate, 100 mm × 90 mm × 12 mm. A 5 mm thick sheet of sponge rubber 100 mm × 90 mm having a Shore A hardness of approximately 15 shall be permanently affixed to one surface, and two hooks 70 mm apart shall be symmetrically attached to one end of the sled as shown in Figure 2.

The mass of the composite sled shall be 930 ±5 g.