Australian/New Zealand Standard™

Methods of testing wool packs for greasy wool

Method 5: Strength of fabric after exposure to ultraviolet radiation

1 SCOPE

This Standard specifies a procedure for determining loss in strength of wool pack fabric specimens after exposure to ultraviolet light at elevated temperatures.

2 REFERENCE DOCUMENTS

The following documents are referenced to in this Standard:

AS
2001 Methods of test for textiles
2001.1 Part 1: Conditioning procedures

AS/NZS
4546 Specification for woven wool packs for greasy wool

3 APPARATUS

3.1 Conditioning facility

A conditioning facility with a means of providing and maintaining a standard atmosphere as specified in AS 2001.1.

3.2 Lamp

A 500 W mercury vapour internally phosphor-coated, fluorescent lamp.

NOTE:

1 Phillips G74 500 watt MBTF 240-250V is an example of a suitable UV lamp.

2 New lamps should be operated for 100 hours before using them for test purposes. It is also recommended that they be discarded after 10000 hours of operation.

3.3 Unit assembly

The unit shall consist of a hollow cylinder of metal, or other suitable material, open at both ends, with an internal diameter of 370 mm and a minimum length of 300 mm. See Figure 1(b).

It shall be laterally supported by legs mounted on a base. The distance between the bottom of the cylinder and the base shall be approximately 100 mm to allow free access of air to all specimens. The appropriate lamp holder (see Figure 1(a)) shall be mounted on the base such that the lamp is central within the cylinder. An electric running hour meter shall be mounted on the base board as part of the lamp circuit.

If the apparatus is operated in low ambient temperatures it will be necessary to insulate the cylinder to maintain the specified black panel temperature (3.4).

NOTE: To control the upper limit of the specified temperature range it is recommended that a thermostatically controlled fan be installed above the lamp.

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