

# Australian Standard<sup>®</sup>

## Methods of testing sheet roof and wall cladding

### Method 4: Resistance to impact (sandbag)— Sheet roof materials

AS 4040.4—2006

#### 1 SCOPE

This Standard sets out a method for determining the resistance to impact of sheet roof materials. The test is intended to simulate the accidental falling of a person onto a plastic building sheet incorporated into a roof structure.

#### 2 REFERENCED DOCUMENT

The following documents are referred to in this Standard:

AS

1562 Design and installation of sheet roof and wall cladding

1562.3 Part 3: Plastic

3567 Textiles—Cloth, duck—Cotton and polyester/cotton

#### 3 PRINCIPLE

A sandbag is dropped from a height of 2.5 m onto a supported test specimen of building sheet to determine its resistance to impact.

#### 4 APPARATUS

##### 4.1 Sandbag

A bag made from polyester/cotton core-spun duck complying with the requirements for Grade CS 420 (420 g/m<sup>2</sup>) of AS 3567.

The sandbag shall have the following properties:

- (a) Cylindrical shape of diameter  $300 \pm 50$  mm and height  $700 \pm 50$  mm with stitching on the inside.
- (b) One end stitched to a circular base and the open end fitted with a hem and cord so that it can be drawn closed.
- (c) Filled with dry sand to provide a mass of  $25 \pm 0.2$  kg.
- (d) Rope attached to the top.

##### 4.2 Pulley

A pulley attached to a suitable support, so that the bag may be raised  $2.5 \pm 0.01$  m above the test specimen, using a rope to which the cord of the sandbag is tied.

##### 4.3 Measuring stick

A measuring stick of  $2.5 \pm 0.01$  m, to check the height of drop from the top of the test specimen to the bottom of the sandbag.