

Australian Standard™

Methods for testing flexible cellular polyurethane

Method 11: Determination of resilience

PREFACE

This Standard was prepared by the Standards Australia Committee PL/36, Flexible Polyurethane, to supersede AS 2282.11—1991.

During the preparation of this revision cognizance was taken of ISO 8307:1990, *Flexible cellular polymeric materials—Determination of resilience*.

METHOD

1 SCOPE This Standard sets out a method for determining the resilience of flexible cellular polyurethane.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

2282 Methods for testing flexible cellular polyurethane

2282.1 Method 1: Sampling and conditioning of test specimens

2282.8 Method 8: Determination of force deflection

3 PRINCIPLE A steel ball is dropped vertically on to a test piece and the rebound height measured and expressed as a percentage of the height dropped.

4 APPARATUS The required apparatus consists of a transparent rigid tube of 40 ± 5 mm internal diameter, held in a vertical position through which is dropped a steel ball, of 16 ± 0.2 mm diameter and weighing 16.5 ± 0.5 g, from a magnet or other device to permit the ball to fall, when released centrally, down the tube without rotation. The height of the tube shall be such as will permit a drop of 500 mm above the surface of the test specimen. A scale shall be fitted on to the back of the tube, calibrated directly in percentage units as follows:

- (a) At every 5 percent mark—a complete circle.
- (b) At every 1 percent mark—a 120° arc.

NOTE: The complete circles are an essential part of the apparatus, as they reduce parallax error in the viewing of the rebounding ball.