

LOAD INDENTATION TEST FOR FLEXIBLE CELLULAR FOAMS

Application

This procedure describes a nondestructive method for determining the load deflection values of flexible cellular foam seating materials.

Equipment Required**Compression Fixture**

A force gauge capable of applying and recording a 66.7 N load.

Source: Chatillon Model #DPP-10 modified as shown in Figure 6
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Upper Mounting Plate

The upper mounting plate shown in Figures 1 and 4 is secured to the bottom of the load compression fixture.

Load Indentor Head

The load indentor head shown in Figures 2 and 5 is attached to the bottom shaft of the load compression fixture.

Conditioning and Test Conditions

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 °C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

Procedure

1. Condition the foam part for 24 h at 23 +/- 2 °C and 50 +/- 5 % relative humidity.
2. Set the dial gauge at zero.
3. Bring the load indentor head into contact with the surface of the part in the test area as designated by the engineering drawing. (See Figure 1 –Normal Position).

Date	Action	Revisions
2001 09 10	Revised	Editorial – no technical change A. Cockman
1992 07 07		

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4. Depress the indenter head into the part surface at a moderate speed until the upper mounting plate comes into contact with the surface. (Approximately 27 mm bottom upper mounting plate to bottom of indenter head.) See Figure 2 - Compressed position.

Note: For parts with irregular bottom surfaces, the flat palm of the hand may be used as a support. (See Figure 3 - Irregular Surface.)

5. Record the load deflection from the dial gauge.
6. Repeat the test two additional times in the same area of the part for a total of three readings.
7. Report the load deflection as an average of the three values obtained.

Chemicals, materials, parts, and equipment referenced in this document must be used and handled properly. Each party is responsible for determining proper use and handling in its facilities.

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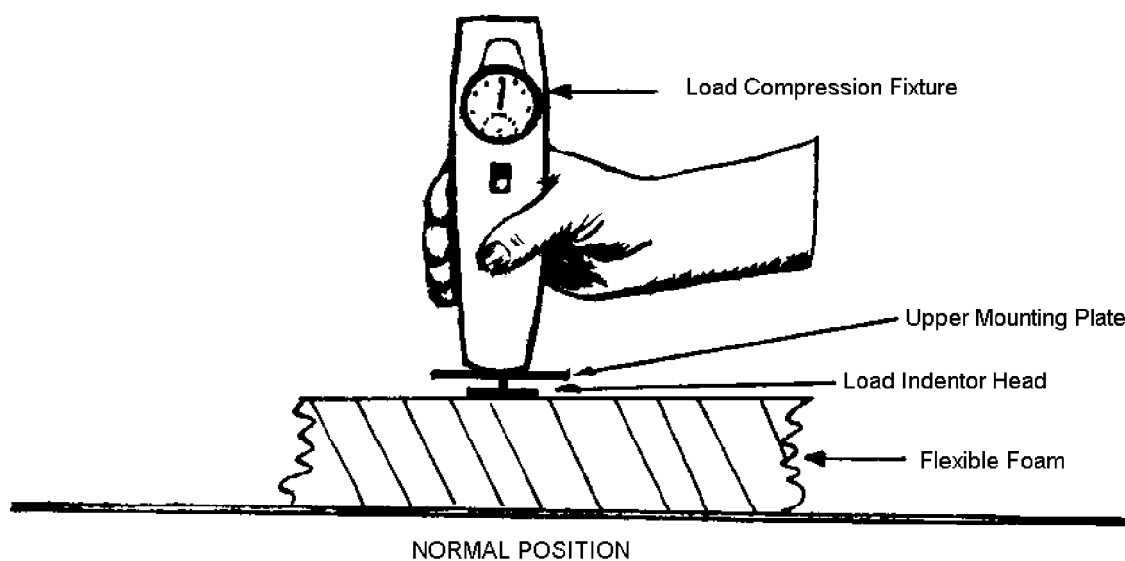


Figure 1