



## TAPE, LOW DENSITY POLYVINYL CHLORIDE FOAM PRESSURE SENSITIVE

ESB-M3G102-A

### 1. SCOPE

The material defined by this specification is a soft, cellular polyvinyl chloride foam tape with one side adhesive coated and the other protected by a coated release paper.

Note: This product is manufactured so that as the tape is unrolled the adhesive surface is exposed. While rolled, the top surface of the release paper serves as a liner to protect the adhesive and prevent sticking. The release paper remains on the adhesive free surface of the foam tape and is not removed until after installation.

### 2. APPLICATION

This specification was released originally for material used as a filler between exterior moldings and enameled metal to seal against air leaks, water leaks, and wind noise.

### 3. REQUIREMENTS

#### 3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

#### 3.2 COLOR

Black or as specified on the engineering drawing

#### 3.3 TENSILE STRENGTH, min 2.5 lb/in (440 N/m) width

##### 3.3.1 Elongation, min 120%

Test Method: 10 in (250 mm) strips of tape as received, with release paper removed, shall be pulled in the lengthwise direction using cross head equipment. The initial jaw separation shall be 4 in (100 mm) and the operating speed shall be 12 in (305 mm)/min. Elongation may be calculated by chart speed determination or by use of calipers. The "Pressure Sensitive Tape Council" Bulletin PSTC-31 dated April, 1966 may be used as a guide.

#### 3.4 LOW TEMPERATURE FLEXIBILITY No cracking

Test Method: Condition 6 in (150 mm) samples of tape as received at -29 +/- 1 °C for 4 h and bend the samples 180° around a temperature conditioned 1/4 in (6.4 mm) diameter mandrel.

#### 3.5 HARDNESS - DUROMETER "00" 10 +/- 5 (ASTM D 2240, ply adhesive to adhesive for 1/2 in (13 mm) minimum thickness and use instantaneous readings)

| Date       | Action   | Revisions                                         |
|------------|----------|---------------------------------------------------|
| 2005 09 29 | Revised  | Inserted 3.0; Deleted 3.1, 3.14, 4                |
| 1978 09 01 |          | Metricated, Renumbered & Retyped CAH1-RD572066-86 |
| 1969 09 11 | Released | AZ1-344                                           |



**3.6 COMPRESSION DEFLECTION**

|       |                    |                                    |
|-------|--------------------|------------------------------------|
| 3.6.1 | Instantaneous, max | 2.20 psi (15.2 kPa)                |
| 3.6.2 | After 60 s         | 0.50 - 1.25 psi<br>(3.4 - 8.6 kPa) |

Test Method: ASTM D 1667, except tape as received is cut 0.75 x 1.50 in (19.1 x 38.1 mm) and plied to 0.50 in (12.7 mm) minimum height, adhesive to adhesive. Compress at a rate of 2 in (50 mm)/min. Record both instantaneous load and load 60 s after compressed height is reached.

**3.7 COMPRESSION SET, max** 90%  
(ASTM D 1667, except at 70 +/- 1 °C for 22 h. Ply tape adhesive to adhesive for 1/2 in (13 mm) minimum thickness and measure recovered height 30 min after clamps are removed)**3.8 WATER SEAL**

No leaks after 1 h under a 2.0 in (51 mm) static head of water.

- A) After 30 min at 23 +/- 2 °C at 30% compression
- B) After 30 min at 121 +/- 2 °C at 50% compression

Test Method: Cut two 12 - 14 in (300 - 360 mm) samples of tape and remove the release paper. Carefully position the tape without wrinkling in a "U" configuration of 6.0 - 6.5 in (150 - 165 mm) inside diameter on a 12 x 12 in (300 x 300 mm) clean flat glass plate with the tape adhesive surface toward the glass surface.

Place an identical 12 x 12 in (300 x 300 mm) glass plate on the top surface of the "U" configuration of tape. Compress to appropriate thicknesses (30% and 50% compressions) using spacers and carefully clamp in these positions in order to maintain a uniform pressure on the full area of the "U".

For requirement "A", place fixture (1) vertically with "U" upright for 30 min at 23 +/- 2 °C. Then add 2.0 in (51 mm) of water above the lowest point of the inside diameter of the "U". Allow to stand 60 min at 23 +/- 2 °C and examine for water leaks below the outer diameter of the "U".

For requirement "B", place fixture (2) vertically in a mechanical convection air oven for 30 min at 121 +/- 3 °C. Allow fixture to cool a minimum of 2 h or until entire assembly is at 23 +/- 2 °C. Add 2.0 in (51 mm) of water and test as in step 3.

**3.9 COMPRESSED DIMENSIONAL STABILITY** 5% volume change

Test Method: Apply approximately 5 in (125 mm) of tape to a steel panel leaving the release paper on the top surface and place the panel in a Method "B" fixture per ASTM D 395.

Measure initial length and width. Compress specimen to 50% of Nominal thickness. Place a 4 - 5 in (100 - 125 mm) length of release paper beneath each spacer to compensate for the release paper on the top surface of the tape. Clamp in this position.

Expose the assembly in an air mechanical convection oven for 30 min at 120 +/- 3 °C.

Remove panel and tape from fixture and condition for 2 h at 23 +/- 2 °C.