



TAPE, PERFORMANCE, PRESSURE SENSITIVE ADHESIVE TWO SIDED, INTERIOR AND EXTERIOR, EMBLEM, AND BADGES

WSS-M11P65-A

1. SCOPE

The material defines performance requirements of adhesive foam tapes used for interior/exterior automotive application. The tapes are coated on both sides with a pressure sensitive adhesive and protected with a release liner.

2. APPLICATION

This specification was released originally to define adhesion performance requirements to retain interior and exterior trim parts including script ornaments, emblems, and badges. Applications require alcohol wipe or lint free dry wipe prior to attaching any parts. The bonding surface shall be free from contaminants prior to attaching any parts.

2.1 LIMITATIONS

- This tape is not recommended to be used for body side moldings, claddings, wheel flares, rocker moldings, and spoiler's applications; except where mechanical attachments are used in conjunction with the tape. The tape alone is not recommended to retain these parts to the vehicle.
- Assembling these parts below 16 °C is not recommended.

3. REQUIREMENTS

3.1 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 TAPE PERFORMANCE MANAGEMENT

All tapes evaluated to this specification must have Supplement A completed filled out and signed by Ford Materials Engineering, the tape supplier, and the tier one supplier. Compatibility of the tape with base material is the responsibility of the tier one supplier. Any change will require a resubmission of supplement A.

Tape approved to this specification must be tested to all current production paint systems and any newly developed paint systems as stipulated in VOP PTG-205.

In addition to the requirements listed in this specification, requirements listed in the appropriate SDS for the application must be met, unless otherwise agreed to by Ford engineering.

Date	Action	Revisions
2008 08 21		Globalization M. Mehandru, FNA
2008 02 04	Revised	Table 1 on page 6 M. Mehandru
2007 04 20	Activated	M. Mehandru





3.3 FINISHED PARTS

Testing must be conducted at Design Verification (DV) and Process Validation (PV) per Table 1 unless otherwise agreed to by Materials Engineering, and on actual production parts or a section of the part whenever possible. Where part dimensions limit test equipment access, representative test samples may be substituted. PV Testing must be conducted on actual production parts.

3.4 TAPE ADHESION REQUIREMENTS

3.4.1 Pluck Adhesion, min, kPa 450

Prepare test blocks per FLTM BU 112-02, Method E. Apply 12.7 X 25.4 mm sample to current exterior quality paint panels after the precondition time, ABS should be pulled normal to the panel surface at a rate of 25.4 mm/minute.

The samples shall meet the adhesion requirements as received and after exposure to the environmental aging conditions listed below.

- Expose four samples to each of the following conditions:

Room Temperature Aging, min
(Do not precondition for 72 h)

- 20 minutes
- 72 h

Heat Aging, min

- Interior

At or Above Beltline:	168 hours, 100 +/- 2 °C
Below Beltline:	168 hours, 90 +/- 2 °C
Scuff Plate / Floor Area:	168 hours, 80 +/- 2 °C
Special Area:	168 hours, (Review with Materials Engineering.)

The standard requirement will be assumed to be "At or Above Beltline" unless otherwise noted on Supplement A, and the Engineering Drawing.

- Exterior

336 hours at 80 +/- 2 °C

Humidity, min

- 336 hours at 38 °C and 98 +/- 2% RH

Cycle Test, min
(5 cycles consisting of:)

- 3 h at 80 +/- 2 °C
- 1 h at 24 +/- 2 °C & 50 +/- 2% RH
- 3 h at -40 +/- 2 °C
- 1 h at 24 +/- 2 °C & 50 +/- 2% RH
- 16 h at 38 +/- 2 °C and 95 +/- 5% RH





3.4.2 Peel Adhesion, min, N/mm (FLTM BU 112-02, Method A)

The samples shall meet the adhesion requirements as received and after exposure to environmental aging conditions listed below.

- Apply a anodized aluminum (per para 4.1.1) to the unlined adhesive side of the tape before testing and determine adhesion to current exterior body quality painted panels prepared per para 4.2 and emblem/body side molding substrate as identified by Materials Engineering.

- Expose four samples to each of the following conditions:

Room Temperature Aging, min
(Do not precondition for 72 h)

- 20 minutes 0.4
- 72 h 0.6

Heat Aging, min 1.3

- 336 hours days at 80 +/- 2 °C

Humidity, min 0.7

- 336 hours at 38 °C and 98 +/- 2% RH

Cycle Test, min 1.3
(5 cycles consisting of:)

- 3 h at 80 +/- 2 °C
- 1 h at 24 +/- 2 °C & 50 +/- 2% RH
- 3 h at -40 +/- 2 °C
- 1 h at 24 +/- 2 °C & 50 +/- 2% RH
- 16 h at 38 +/- 2 °C and 95 +/- 5% RH

3.4.3 Shear Adhesion, min, kPa

Prepare four 645 mm² overlap shear test specimen using 1 x 3 in (25 x 75 mm) test panels with production paint to anodized aluminum.

Prepare 12 samples and condition for 24 h at 23 +/- 2 °C. Use 3 samples of the "as received" shear adhesion and 3 samples for each of the environments listed below:

As Received: 410

Heat Aging, min 410

- 336 hours at 80 +/- 2 °C

Humidity Aging, min 240