



TAPE, POLYETHYLENE - PRESSURE SENSITIVE EXTERIOR

ESB-M3G161-A

1. SCOPE

The material defined by this specification is an ultra high molecular weight polyethylene film with a pressure sensitive, paper backed adhesive.

2. APPLICATION

This specification was released originally for materials used to prevent squeaks between the unpainted side of the (RIM) front and rear stone deflectors and front and rear bumper assemblies.

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).

3.4 SETTING TIME FOR NORMAL HANDLING

The film shall set sufficiently to permit normal handling immediately after application.

3.5 FILM PROPERTIES

		<u>TYPE I</u>	<u>TYPE II</u>
3.5.1	Color	Neutral	Neutral
3.5.2	Thickness, min (ASTM D 1000)		
	Tape plus Adhesive	0.11 mm	0.11 mm
	Release Liner	0.08 mm	0.15 mm
3.5.3	Tensile Strength, min (ASTM D 1000)	3.5 N/mm width	8.8 N/mm width
3.5.4	Elongation at Break (ASTM D 1000) 150%	150%	90%

3.6 PREPARATION OF TEST SPECIMENS

Substrate test specimens may be obtained from slab stock and/or unpainted production parts. Except where otherwise noted, tests shall be conducted on test panels of the substrate listed below by applying the film per the following procedure:

- Test panels to be cleaned with a 50/50 solution of distilled water and isopropyl alcohol.
- Peel off the backing liner from the film in a smooth continuous motion. Do not pull the film from the liner.

Date	Action	Revisions
2006 01 18	Revised	Inserted 3.0; Deleted 3.1, 3.2, 3.3, 3.11, 4
1988 07 20	Revised	CVS1-DR149781 Added type II Material
1987 11 25	Released	CVR1-SR173462-1



- Position the film on the test panel.
- Roll forward and backward the full length of the film with a roller described in ASTM D 1000.
- Test panels with applied film shall be conditioned for 72 h at 23 +/- 2 °C and 50% relative humidity prior to exposure. Test shall be completed within 4 h after removal from the conditioning environment, unless otherwise noted.

3.6.1 Substrate

3.6.1.1 Polyurethane, Microcellular Elastomer-RIM-
Exterior Paintable
(ESB-M2D263-type)

3.7 ADHESION, min (ASTM D 1000, except determine adhesion to substrates listed in para 3.6.1)

The adhesive shall produce a durable bond between the film and the substrates surfaces with the following minimum peel strength:

	<u>TYPE I</u>	<u>TYPE II</u>
1 h	175 N/m	400 N/m
72 h (Conditioned at 23 +/- 2 °C, 50% relative humidity)	350 N/m	500 N/m
Aged: 3 days at 70 +/- 1 °C	526 N/m	550 N/m
Other Aged Properties	526 N/m	700 N/m

Test Method: Expose duplicate samples to each of the following conditions:

- 7 days at 38 +/- 1 °C and 95 - 100% relative humidity
- 7 days water immersion per FLTM BI 104-01
- 7 days salt spray per FLTM BI 103-01
- 5 cycles consisting of 4 h at 70 +/- 1 °C, 4 h at 38 +/- 1 °C and 95 - 100% relative humidity, and 16 h at -29 +/- 1 °C

3.8 RESISTANCE PROPERTIES

After each of the exposures listed below, the film must not show the following:

- No adhesive delamination
- No blistering
- No excessive shrinkage
- Moderate yellowing
- No edge curling

