



HEADLINER, INTEGRAL AIR DUCT

WSB-M15P38-A

1. SCOPE

The material defined by this specification is a unitized formed assembly.

2. APPLICATION

This specification was released originally for the integral air duct headliner on the 1992 Econoline.

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).

3.3 CONDITIONING AND TEST CONDITIONS

Testing must be conducted at each prototype and production build phase unless otherwise specified by Ford engineering. See table 1.

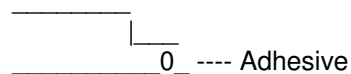
3.4 CONSTRUCTION

As specified on
engineering drawing

3.5 WEIGHT

As specified on
engineering drawing

3.6 BOND JOINT CONFIGURATION



3.6.1 12 mm overlap bond, min.

3.6.2 7 mm adhesive bead, nominal

Date	Action	Revisions	Ver. 2
2008 06 25	Revised	Inserted 3.0, 4. & Table 1; Deleted 3.1, 3.2, 3.3, 3.11, 3.12 & 4; Revised 3.3, 3.7.2, 3.7.3, 3.7.4, 3.9 & 3.10	M. Durnill, FNA
1994 08 16	Released	NB00110043054355	D. Ruona, K. Manich, B. Ferns



3.7 90° PEEL ADHESION, min
(ASTM D 903, except 90° and
50 mm/minute)

Test Method: Cut separate 25 mm wide test pieces from the air duct headliner interface with the bond joint configuration of para 3.6. Condition one test piece for each exposure shown below. After exposure, pull at 90° with a jaw separation rate of 50 mm/minute. Report adhesion values and mode of failure.

Note: Adhesion values must be met irrespective of failure mode.

3.7.1	Original	26 N
3.7.2	At 90 +/- 2 °C (Precondition for 30 minutes at 90 +/- 2 °C)	26 N
3.7.3	After Heat Aging 7 days at 90 +/- 2 °C	26 N
3.7.4	After the following cycle:	26 N
	. 5 h at -40 +/- 2 °C	
	. 30 min at 23 +/- 2 °C and 50% R.H.	
	. 5 h at 90 +/- 2 °C	
	. 30 min at 23 +/- 2 °C and 50% R.H.	
	. 16 h at 50 +/- 2 °C and 95 +/- 5% R.H.	
	. 30 min at 23 +/- 2 °C and 50% R.H.	
	. 5 h at -40 +/- 2 °C	
	. 30 min at 23 +/- 2 °C and 50% R.H.	
	. 5 h at 90 +/- 2 °C	

3.8 AIR PERMEABILITY, max
(ASTM D 3574, Test G)

Duct	120 cm ³ /s
Headliner below duct area	120 cm ³ /s

3.9 FOGGING (Duct and Adhesive System)
(SAE J1756, 3 h at 100 °C heating, 21 °C cooling
plate, post test conditioning 1 h and 16 h)

Fog Number, min	70
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Formation of clear film, droplets or crystals is cause for rejection.

3.10 ODOR (Duct and Adhesive System), max
(FLTM BO 131-03 or SAE J1351*)

Rating 3

**note method used on data submission form*

4. APPROVAL TEST RECOMMENDATIONS for DV and PV testing
DV and PV testing must be conducted as recommended per Table 1