



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

ADHESIVE, ETHYLENE VINYL ACETATE,
HOT APPLIED 160 - 180 C, PRESSURE SENSITIVE

WSK-M2G345-A

1. SCOPE

The material defined by this specification is a thermoplastic pressure sensitive hot melt adhesive.

2. APPLICATION

This specification was released originally for material used to bond foam pad to frame of front seat back.

3. REQUIREMENTS

3.1 STATISTICAL PROCESS

Suppliers must conform to the requirements of Ford Quality System Standard Q-101. A mutually acceptable Control Plan as described therein is required for material/source approval. Appropriate statistical tools must be used to analyze process/product data so that variation in the final product is continuously reduced.

3.2 INFRARED SPECTROPHOTOMETRY AND/OR THERMAL ANALYSIS

Ford Motor Company, at its option, may conduct infrared and/or thermal analysis of material/parts supplied to this specification. The IR spectra and thermograms established for initial approval shall constitute the reference standard and shall be kept on file at the designated material laboratory. All samples shall produce IR spectra and thermograms that correspond to the reference standard when tested under the same conditions.

3.3 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.

3.4 COLOUR

Light brown, transparent, or as specified on Engineering Drawing

3.5 SOLIDS, min (FLTM BV 150-10)

99 %

Date	Release No.	Release/Revision
1991 01 02	C01089480	Released K. Wolters, conc. J. Schult

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- 3.6 ASH, max. 0.1 %
(FLTM BV 150-10)
- 3.7 DENSITY Initial Sample +/- 0.05 g/cm³
(ASTM D 792)
- 3.8 SOFTENING POINT 65 - 71 C
(ASTM E 28, Ring and Ball Apparatus)
- 3.9 VISCOSITY
(ASTM D 4402, Brookfield RVT/Thermosel
Spindle No. SC4/27, 1 rpm. Alternate
method Haake Rotovisco PK II, 54 rpm)
- | | |
|-------|--------------------|
| 150 C | 12000 - 15000 mPas |
| 160 C | 9900 - 12200 mPas |
| 170 C | 7800 - 9600 mPas |
- 3.10 SHEAR STRENGTH
(FLTM BU 151-01)

Test Method: Apply adhesive at the application temperature of 160 - 180 C to a 25 x 10 mm area of a 25 x 75 mm non-impregnated canvas fabric piece (having a min tensile strength 1kN/50 mm width) to a thickness of approx. 0.8 mm.

Aging of the adhesive prior to bonding:

- 3.10.1 1 minute at 23 +/- 2 C
3.10.2 30 minutes at 23 +/- 2 C
3.10.3 120 minutes at 23 +/- 2 C

Place the adhesive side of the canvas fabric specimen on a polished stainless steel panel (0.8 to 1.0 mm thickness) and roll the overlapped area for 10 s with a 2 kg roller per ASTM D 1000, (see fig. 1)

After 1 h at 23 +/- 2 C determination of shear strength at a rate of 25 mm/minute.

Requirements:

- | | |
|------------------------------|----------------------|
| 3.10.1 Unaged, min | 35 N/cm ² |
| 3.10.2 Aged 30 minutes, min | 35 N/cm ² |
| 3.10.2 Aged 120 minutes, min | 35 N/cm ² |