



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

ADHESIVE, POLYAMIDE, HOT APPLIED 160 - 170 C

WSK-M2G344-A

1. SCOPE

The material defined by this specification is a hot melt adhesive based on polyamide resins.

2. APPLICATION

This specification was originally released for material used to bond sunvisor pad to sunvisor frame.

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

Yellow, amber or as specified on Engineering Drawing.

3.5 SOLIDS, min (FLTM BV 150-10)

99 %

3.6 ASH, max (FLTM BV 150-10)

0.2 %

Date	Release No.	Release/Revision
1991 03 01	C01089482000	Released K. Wolters J. Schult

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- 3.7 DENSITY Initial Sample +/- 0.05 g/cm³
(ASTM D 792)
- 3.8 SOFTENING POINT 100 - 125 C
(ASTM E 28, Ring and Ball Apparatus)
- 3.9 VISCOSITY
(ASTM D 4402, Brookfield RVF,
Spindle No. SC4/27 or equivalent equipment)
160 +/- 2 C, 20 rpm 2000 - 2700 mPa.s
- 3.10 SHEAR STRENGTH
(FLTM BU 151-01, Method A)
- Test Method:
- Apply adhesive at an application temperature of 160 - 170 C to a non-impregnated canvas fabric piece of 300 g/m².
- Immediately after adhesive application place the adhesive side of the canvas specimen on a heated (125 C) steel panel. Bonding pressure 30 N/m².
- Conditioning: 24 h at 23 +/- 2 C
- Determination of shear strength at a rate of 25 mm/minute.
- Requirements:
- | | |
|--------------------------|----------------------|
| 3.10.1 At 23 +/- 2 C min | 120 N/m ² |
| 3.10.2 At - 30 C, min | 80 N/m ² |
| 3.10.2 At 90 C, min | 30 N/m ² |
- 3.11 PEEL STRENGTH, min 10 N/cm
(FLTM BU 151-01, Method B1)

Test Method:

Apply adhesive at an application temperature of 160 - 170 C to a non-impregnated canvas fabric piece of 300 g/m².

Immediately after adhesive application place the adhesive side of the canvas specimen on a heated (125 C) steel panel. Bonding pressure 30 N/m².

Conditioning: 24 h at 23 +/- 2 C

Determination of shear strength at a rate of 300 mm/minute.