



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

ADHESIVE PROMOTER, POLYVINYLBUTYRAL BASE,
TWO COMPONENT, BASE MATERIAL

WSK-M2G377-A2

ADHESIVE PROMOTER, POLYVINYLBUTYRAL BASE,
TWO COMPONENT, HARDENER

WSK-M2G377-A3

1. SCOPE

The materials defined by these specifications are the 2 components of a polyvinylbutyral base adhesion promoter to be used on metal parts prior to bond with moisture curing polyurethane adhesive.

2. APPLICATION

These specifications were released originally for materials used to prime isopropanol cleaned metal parts prior to bond using direct glazing adhesive (f.e. WSK-M2G379-A1 to -A4).

WSK-M2G377-A2 is the polyvinylbutyral base component and to be used in connection with WSK-M2G377-A3, the phosphoric acid based hardener.

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.

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1994 09 06	EP00E10439922000	Released
		B. Lange

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3.4	COLOUR	A2	yellow or as specified on Engineering drawing	
		A3	colourless, clear	
3.5	DENSITY AT 20 C, g/cm ³ (ASTM D 792)		see Initial Sample Report +/- 0.05	
		A2	A3	
3.6	SOLIDS, %, min (FLTM BV 150-10)	20	3	
3.7	ASH, %, max (FLTM BV 150-10)	41	18	
3.8	VISCOSITY, seconds (FLTM BI 111-01, FC#4)			
3.8.1	Original at 20 C +/- 2 C	22 - 30	8 - 13	
3.8.2	After Ageing, max (14 days at 30 C +/- 2 C)	35	15	
3.9	MIXING RATIO (conditioning after mixing prior to use 30 minutes)	A2/A3	= 1:1 by volume	
3.10	QUALITY			

The adhesive shall be a smooth, homogeneous mixture, free from foreign materials. The material must be adaptable for application in accordance with the appropriate Ford Motor Company Process Specification and must be compatible with all related materials.

3.11 ADDITIONAL REQUIREMENTS

Specific requirements for material and/or manufactured parts shall be specified on the Engineering drawing, Engineering parts specification and/or performance specification. All critical areas with respect to these properties shall be clearly designated on the engineering drawing.