



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

ADHESIVE TAPE, POLYURETHANE, CLEAR, PAINTABLE,
STONE CHIP RESISTANT

SK-M3G9523-B1

1. SCOPE

The material defined by this specification is a heat resistant colorless clear polyurethane tape single coated by a self adhesive and covered by release paper.

2. APPLICATION

This material was originally released as a stone chip protection on wheel arch flare. Application is possible prior to paint application as well as after paint curing oven.

3. REQUIREMENTS

3.1 QUALITY SYSTEM REQUIREMENTS

Material suppliers and part producers must conform to Quality System Requirements, QS-9000. Material specification requirements are to be used for initial qualification of materials. A Control Plan for ongoing production verification is required. This plan must be reviewed and approved by the relevant Ford Materials activity and/or Ford Supplier Technical Assistance (STA) prior to production parts submission. Appropriate statistical tools must be used to analyze process/product data and assure consistent processing of the materials.

Part producers using this material in their products, must use Ford approved materials and must conform to a process control plan which has been approved by STA and/or the relevant Materials Activity.

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.

Date	Action	Changes
1999 01 29	Revised	Deleted B2; Revised & Updated K. Bruley
1994 11 30		Revised and Retyped
1982 07 12	SM/EQ9044TP	Released

WP 3948-a

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3.4 DIMENSIONS

3.4.1 Width (Sliding gauge) As specified on Engineering drawing

3.4.2 Thickness (ASTM D 1000) 0.29 - 0.39 mm

Or as specified on Engineering drawing.

3.5 COLOR Colorless clear or as specified on Engineering drawing

3.6 MASS per m² 0.30 - 0.50 kg

3.7 TENSILE STRENGTH, min 150 N/25 mm
(ASTM D 882, Method A, separation rate 300 mm/minute, clamp distance 50 mm)

3.7.1 Elongation at Break, min 350 %

3.8 180 DEGREE PEEL ADHESION (ASTM D 1000, on polished stainless steel)

3.8.1 Original, min 35 N/25 mm
(24 h at room temperature)

3.8.2 After Ageing No loss of adhesion
(14 days at 70 +/- 2 C, 1 h at room temperature)

3.8.3 After Humidity Ageing No loss of adhesion
(72 h at 38 +/- 2 C and 98 +/- 2.5 relative humidity)

3.9 SHEAR ADHESION, min 40 N/2.5 cm²

Test Method: 2.5 cm² of a 25 mm wide tape shall be bonded to a polished stainless steel panel. The mating surfaces must be pressed firmly together to force out trapped air and ensure a good bond.

Determine shear strength at a rate of 25 mm/minute.

Free tape length maximum 5 mm.

3.10 SOFTENING POINT, min 95 C
(ASTM D 816, except specimens per clause 3.6)

Test Method. Maintain oven temperature at 50 C for 15 minutes and then increase 2.5 C/5 minute until bond failure.