



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

SEALER, BUTYL RUBBER, SOLVENT FREE

WSK-M4G261-B2

1. SCOPE

The material defined by this specification is a solvent free, hot applicable (140 +/- 2 C) butyl rubber sealer with polyisobutylene plasticizer.

2. APPLICATION

This specification was released originally for material used for bonding and sealing of door weatherstrip to roof.

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.

Date	Release No.	Release/Revision
1991 02 01	C01089481000	Released W. Scholz Conc. J. Schult

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3.4	COLOR	Black
3.5	SOLIDS, min (FLTM BV 150-10)	98 %
3.6	ASH, max (FLTM BV 150-10)	37 %
3.7	DENSITY AT 20 C (ASTM D 1475)	1.1 - 1.3 kg/L
3.8	PENETRATION (ASTM D 937, 1.5 N total load mass, 5 s dwell time, data in 0.1 mm)	
3.8.1	As Received	
3.8.1.1	At 23 +/- 2 C	45 - 75
3.8.1.2	At - 30 +/- 2 C, min (30 minutes tempering time)	10
3.8.1.3	At 60 +/- 2 C, max (30 minutes tempering time)	125
3.8.2	After Aging, max (Based on the value obtained under 3.8.1.1, 14 d at 80 +/- 2 C)	25 %
3.9	FLOW RATE (FLTM BV 153-01, Method A, except 30 minutes at 120 +/- 2 C)	No flow
3.10	COLD RESISTANCE AFTER AGING	No loss of adhesion, no chipping

TEST METHOD:

- . Apply a 250 x 30 x 3 mm ribbon of material under test, heated to 140 +/- 2 C, centrally to 300 x 100 x 4 mm rubber slabs in accordance to WSD-M2D405-A1.
- . Expose test assemblies in a mechanically convected air-drying oven at 80 +/- 2 C for two weeks.
- . After cooling to 23 +/- 2 C, expose test assemblies in a cold box at - 30 +/- 2 C for 4 h.
- . While still in the cold box bend test assemblies within 2 s around the 50 mm mandrel through an angle of 90 degrees.