

ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

**ADHESIVE, URETHANE, TWO COMPONENT,
HEAT CURING, PLASTIC BONDING**

WSB-M2G382-A

1. SCOPE

The material defined by this specification is a pumpable, two component, heat curing, urethane adhesive.

2. APPLICATION

This specification was released originally for material used to structurally bond plastic components such as polyvinyl chloride to nylon (type 66). The polyvinyl chloride may require an adhesion primer to protect the bondline from plasticizer migration. Refer to para 4.2 for typical cure schedules.

Compliance with this material specification does not guarantee the adhesive will function for all potential applications on a vehicle. The specific design condition should be evaluated by a plant trial or laboratory simulation prior to release of the material.

3. REQUIREMENTS

3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.4 UNCURED MATERIAL CHARACTERISTICS

Initial adhesive strengths are achieved after 1.5 h room temperature curing.

3.4.1 Viscosity
(FLTM BV 103-01, 2.64 mm orifice,
550 kPa air pressure, Method A,
test at 23 +/- 2 °C)

3.4.1.1 As received

.	Base	12 - 33 s
.	Curative	45 - 85 s

Date	Action	Revisions
2002 12 09	Revised	Para 3.0 inserted ; Para 3.1, 3.2, 3.3, 3.9, 3.10, 4 deleted
1994 11 30	NB00E10263411000	Released D. DiGregorio E. Rezendes

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3.4.1.2 Aged, 7 days at 40 +/- 2 °C

. Base
. Curative

10 s max increase
from initial
viscosity

3.4.1.3 Aged, 90 days at 27 +/- 2 °C

. Base
. Curative

10 s max increase
from initial
viscosity

3.4.2 Solids, min
(ASTM D 2834, except 3 h at
100 +/- 2 °C, save sample for
next test)

98 %

3.4.3 Ash, max
(ISO 3491, Method A, 760 +/- 30 °C)

35 %

3.4.4 Weight Per Volume
(ASTM D 816)

+/- 0.02 kg/L

The weight tolerance for any one supplier shall be based on the recorded weight of their original approved production sample. Refer to para 5.3 for additional information.

3.4.5 Sag Resistance, max
(FLTM BV 118-01, 6 mm mixed material
thickness, substrates per para 5.1)

No sag

3.4.6 Expansion

No porosity
or expansion

. Extrude a 13 x 200 mm adhesive bead onto a 100 x 300 mm, plastic
substrate per para 5.1.

. Place the test panel in an air circulating oven and bake at 120 +/- 2 °C
for 30 minutes.

. Condition test panel at 23 +/- 2 °C for 1 h minimum after baking.

. Cut the adhesive bead and panel lengthwise through the center of the
adhesive bead.

. Examine the adhesive for any voids, porosity or expansion caused by
entrapped air or internal gassing.