



TAPE, MODIFIED POLYVINYL CHLORIDE, HIGH TEMPERATURE

WSB-M3G205-A

1. SCOPE

The material defined by this specification is a modified polyvinyl chloride tape with high temperature resistance having no adhesive backing.

2. APPLICATION

This specification was released originally for material used as a protective covering wrapped around prefabricated wiring harnesses. It is wrapped around the wires with sufficient tension and overlap to provide adequate retention. It can be used at continuous operating temperatures up to 150 °C.

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 COLOR

Black

3.5 TENSILE STRENGTH, min
(ASTM D 882, Method 'A')

14.0 MPa

3.6 ELONGATION, min
(ASTM D 882, Method 'A')

160%

3.7 ELASTIC MODULUS AT 100% ELONGATION, min
(ASTM D 882)

10.0 MPa

3.8 THICKNESS, range
(ASTM D 1000)

0.12 - 0.15 mm

3.9 FOGGING
(FLTM BO 116-03)

Fog Number, min

60

The formation of droplets or coalescence into a clear film is cause for rejection.

3.10 FLAMMABILITY
(ASTM D 568)

Shall not support combustion
nor burn to the gauge mark.
Self extinguishes within 30 s

3.11 RESISTANCE TO AUTOMOTIVE FLUIDS

After prescribed exposure, the tape shall show no signs of flagging, degradation, or loss of adhesion.

Date	Action	Revisions
2006 01 31	Revised	Inserted 3.0; Deleted 3.1, 3.2, 3.3, 3.16, 3.17, 4
1991 09 20	Released	NBOOI10043054127



Documents

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**3.11.1 Room Temperature Fluids**
(23 +/- 2 °C immersion)

Reference Fuel C	ASTM D 471/ISO 1817
Diesel Fuel	ESE-M4C8-A *
Brake Fluid	ESA-M6C25-A *
Battery Acid	35% H2SO4
Windshield Washer Fluid	ESR-M17P5-A *

* Or currently released equivalent fluid (see para 5.1).

Test Method: Wrap and tie tape around a 300 mm long, 9.5 mm diameter convolute for 100 mm. Immerse four wrapped samples in each fluid for five minutes. Remove from fluid and observe effects after 1, 24, 48, and 72 h.

3.11.2 High Temperature Fluids (100 +/- 2 °C immersion)

Transmission Fluid	ESP-M2C138-CJ *
Engine Oil	WSD-M2C904-A
Anti-freeze	ESE-M97B44-A *
Engine Degreaser	ESR-M14P3-A *

* Or currently released equivalent fluid (see para 5.1).

Test Method: Same as above, except immerse samples in fluids maintained at 100 +/- 2 °C for five minutes. Remove samples and age in an oven maintained at 100 +/- 2 °C for 1, 24, 48, and 72 h. Remove from oven and observe effects.

3.12 COLD FLEXIBILITY
(FLTM BN 102-01, Method A)

No cracking or splitting

Precondition samples in oven at 82 +/- 2 °C for 24 h. Use cold box maintained at -34 +/- 2 °C and a 6 mm diameter mandrel for flex test.

3.13 UNWIND PULL
(ASTM D 1000, Method A)

250 - 330 N/m

3.14 STORAGE STABILITY

The material shall be stored at temperatures below 30 °C, away from all sources of heat and sunlight. Under these storage conditions, the minimum shelf life of the material shall be six months. When these materials are stored at temperatures below 23 °C, they shall be conditioned at room temperature prior to application. Adequate conditioning permits the material to obtain its optimum application properties.

5. GENERAL INFORMATION

The information below is provided for clarification and assistance in meeting the requirements of this specification.