

NAVISTAR, INC.		
Material, Parts, and Process Specifications (MPAPS)		NUMBER: MPAPS D-7016
TITLE: Polyvinyl Chloride Extrusions (Trim)		CURRENT REV. No. : 1408 DATE: AUGUST 2014
WRITTEN/EDITED BY: Materials Engineering	APPROVED BY: Materials Engineering	SUPERSEDES: TMS-7016 - April 2009
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<i>This specification may involve hazardous materials, equipment, and procedures. This specification does not purport to address all of the safety issues associated with its use. The user is responsible to consult appropriate safety and health practices and to determine the applicability of regulatory limits prior to use.</i>		
Change Notice: Changed to new MPAPS format; added Type 2A; updated reference documents; editorial changes.		

1.0 APPLICATION

This specification covers three types of non-staining and non-fogging polyvinyl chloride resin compounds suitable for truck trim applications. A pressure sensitive adhesive may be applied to one side of the extrusion by specifying this option on the engineering drawing.

Type 1: Exterior Trim

Type 2A: Interior Tape/Tread

Type 1A: Exterior Tape

Type 3: Under Hood Components

Type 2: Interior Trim

Type 4: Aero Closeout

2.0 SCOPE

This specification covers the general requirements, property and performance requirements, quality, identification, qualification, source approval and quality control.

2.1 Restricted Chemical Substances

Effective January 1, 2007, all product supplied to the requirements of this specification must comply with the requirements of the MPAPS B-50 specification.

3.0 REFERENCE DOCUMENTS

Unless otherwise specified the latest issue of all referenced standards shall apply. The following Specifications, Standards, and Regulations are referenced in this specification.

Quality System Standard ISO 9001 or TS-16949

ASTM D 412

ASTM D 1203

NAVISTAR Mfg Standard MS-D-13

ASTM D 570

ASTM D 2240

NAVISTAR CEMS G-5, Part II

ASTM D 618

ASTM G 154

CFR Title 29, Part 1910

ASTM D 624

AATCC8

RMA Handbook (Rubber Manufacturers Association)

ASTM D 792

FMVSS 571.302

NAVISTAR TMS-9544

ASTM D 903

SAE J323

NAVISTAR MPAPS GT-31

ASTM D 2047

SAE J80

NAVISTAR MPAPS B-50

4.0 GENERAL REQUIREMENTS

Unless otherwise stated, all tests shall be performed at room temperature. Preconditioning: in case of dispute, ASTM D 618, Procedure A, shall govern conditioning of test samples.

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4.1 Color

Shall be black unless otherwise specified on the engineering drawing.

4.2 Odor

Shall not have a disagreeable odor.

4.3 Adhesion

When specified on the engineering drawing, the pressure sensitive adhesive shall be an acrylic pressure sensitive type, with 5 mil minimum thickness and shall be supplied with a moisture resistant release liner. The location/placement and extent of the adhesive shall be shown on the engineering drawing. The bonding surface (type of surface) should be indicated on the drawing. If the type of surface is not indicated, qualification shall be based on the use of a painted finish (Grade-18HS, basecoat/clearcoat as per CEMS G-5, Part II).

4.3.1 Prequalification of the adhesive is required. Unless otherwise specified, all test samples shall be prepared as follows:

4.3.1.1 Clean surface with isopropyl alcohol (rubbing alcohol) and water solution (50%)

4.3.1.2 Dry

4.3.1.3 Remove release liner and apply product to substrate.

4.3.1.4 Apply uniform pressure.

4.3.1.5 Allow to stand at ambient conditions for 72 hours.

4.3.2 The adhesive shall meet all aging and weathering requirements of the PVC extrusion without delamination or loss of adhesion. Additional adhesion requirements may be specified on the drawing.

4.4 Property And Performance Requirements

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>UNITS</u>	<u>REQUIRED</u>				
			<u>TYPE 1</u>	<u>TYPE 1A</u>	<u>TYPE 2 & 2A</u>	<u>TYPE 3</u>	<u>TYPE 4</u>
Specific Gravity, max	ASTM D792 Method A	----	1.4	0.86	1.35	1.44	1.55
Tensile	ASTM D412	MPa (min)	10	7	7	10	9.5
Elongation	ASTM D412	% (min)	225	100	250	300	250
Hardness	ASTM D2240	----	65-70	40-45	55-65	70-75	75-90
Tear Strength, min	ASTM D624 Die C	kN/m	17.5	17.5	17.5	17.5	17.5
		lbf/in	100	100	100	100	100
Peel Adhesion, min	ASTM D903	kN/m	---	0.84	---	1.4	---
		lbf/in	---	4.8	---	8	---
Coefficient of Friction	ASTM D2047, dry	----	N/A	0.95	1.06 (2A)	N/A	N/A

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