

NAVISTAR, INC.		
Material, Parts, and Process Specifications (MPAPS)		NUMBER: MPAPS G-9010
		Former Designation: TMS-9010
TITLE: Paint Mask, Plastic Film Type		CURRENT REV No.: 1705
		DATE: May 2017
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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>		

1.0 APPLICATION

This specification covers a PVC plastic film type paint mask suitable for providing a paint barrier that is easily removed after painting either in the “wet” condition or after the paint baking cycle.

2.0 SCOPE

This specification covers the general requirements, property and performance requirements, test methods, quality, and approved sources.

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 D882
CFR Title 29, Part 1910	ASTM D903
NAVISTAR Supplier Packing and Shipping Std. D-13	ASTM D4976
NAVISTAR Engineering Design Std. A-16	MIL-DTL-43719
NAVISTAR MPAPS B-50	

4.0 REQUIREMENTS

The paint mask is a readily visible tinted or opaque PVC plastic film, with a uniformly applied adhesive. It is used as a paint barrier in designated surface areas. As may be needed for design requirements, parts of the paint mask may be removed with the carrier sheet holding the remaining parts in position. After application to the surface, the mask is held in place by the adhesive. The mask is printed, in designated areas, with specific instructional labeling and includes cut-line pointers to clearly identify the “pull” areas needed to achieve the desired schematic/pattern after painting.

4.1 Identification

The approved paint masks will be identified with their Navistar part number.

4.2 Paint Mask Components

4.2.1 Release Backing

The paint mask will be supplied on a release paper to protect the mask adhesive during handling and shipping. The mask and release paper shall have slits in designated locations, to allow an efficient and smooth application. The release paper shall have sufficient strength to prevent breakage or tearing

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MAY 2017



Documents

Page 1 of 5
Document Sharing Hub

NUMBER: MPAPS G-9010	TITLE: Paint Mask, Plastic Film Type	REVISION: 1705
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during shipment or handling and to permit a clean and even release from the adhesive masking. Products shall be free of any contaminants that will be detrimental to paint adhesion.

4.2.2 Adhesive

The paint mask will include a pressure-sensitive adhesive capable of carrying the necessary masking components and meeting all specification/test requirements. The adhesive shall allow repositioning on surfaces having temperatures of 21°C (60°F) to 32°C (90°F) without distortion. It shall permit the clean removal of the paint mask from a surface after three oven cycles of one hour at 93°C (200°F).

4.2.3 Carrier Sheet

Shall be paper, with a uniformly applied adhesive. It is used to hold die-cut paint mask together in proper spacing until mask is applied. It shall be capable of being die-cut to the shape and dimensions necessary for the proper masking application. When applicable, in one or more designated areas, the carrier sheet will not cover the paint mask. This will allow pull line indicator instructions to be printed on the painted mask. The carrier sheet, itself, is to be printed with “identification” requirements as described above. Carrier sheet shall be easily removed after the paint mask is applied.

4.2.4 Paint Mask Appearance

The lines of the paint mask shall be fully die-cut without burrs so that the desired mask areas, when pulled wet or dry, produce clean paint lines. Printed instructions must be clean, neat, legible, and in proper register to cut lines. The combination of a carrier and paint mask shall be die-cut in proper register to assure paint mask is in designated position after application. Carrier, paint mask, and release backing shall be wrinkle free and fully laminated to prevent contamination.

4.3 Property and Performance Requirements

4.3.1 Test Procedures

Test methods shall be those either referenced or outlined in this specification.

4.3.2 Thickness

4.3.2.1 Plastic Film: 0.08 ± 0.01 mm (0.003 ± 0.0005 in)

4.3.2.2 Adhesive: 0.025 mm (0.001 in) minimum

4.3.3 **Tensile Strength and Elongation**: ASTM D882, Method A @ 22 ± 2°C (72 ± 5°F)

4.3.3.1 Tensile Strength: 1.8 kN/m (10 lbf/in) width minimum

4.3.3.2 Elongation: 75% minimum

4.3.4 Peel Strength

Paint mask shall meet adhesion requirements for Navistar paint surfaces. See section 4.4 for panel preparation and testing. See ASTM D903 for additional peel test directions on angle of peel and other related information.

4.3.4.1 Paint Mask

	<u>N-m</u>	<u>Ozf-In</u>
Initial Adhesion at Room Temperature (See Paragraph 4.4.1.1.7)	80-100	7.3-9.1
Initial Adhesion at 54°C (130°F) (See Paragraph 4.4.1.1.7)	150-175	13.7-16.0
Operational Adhesion at Room Temperature (See Paragraph 4.4.1.1.8)	150-175	13.7-16.0
Operational Adhesion at 54°C (130°F) (See Paragraph 4.4.1.1.8)	150 min	13.7 min

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MAY 2017



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Page 2 of 5
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