

NAVISTAR, INC.		
Material, Parts, and Process Specifications (MPAPS)		NUMBER: MPAPS L-6606
		<i>Former Designation: TMS-6606</i>
TITLE: Insulation, Floor Mat, Dash & Carpet (E-5 Type)		CURRENT REV No.: 1610
		DATE: Oct. 2016
WRITTEN/EDITED BY: D. Baker	APPROVED BY: R. Goluch	SUPERSEDES: Rev. 1002 – February 2010
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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

The material covered by this specification is generally an insulator pad composed of a needled or bonded felted padding of synthetic and natural fibers (with the exception of 1B), suitable for use as a floor mat, dash, or carpet underlayment material. The material types are specified as follows:

Type IA: Material is suitable for general applications.

Type IB: Material is suitable for general applications, except closed cell PVC/NBR foam will be used in place of needled or bonded felted padding of synthetic natural fibers. **Note: Type IB does not provide any acoustical benefit.**

Type II: Material is suitable for acoustical applications. (Must be approved by the Navistar, Vehicle Acoustics Group, for the intended use.)

NOTE: THIS SPECIFICATION REPLACES TMS-6508

2.0 SCOPE

This specification covers the general requirements, property and performance requirements, quality, and inspection tests. An approved source list is included.

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 <i>ISO 9001</i> or TS-16949	CFR Title 29, Part 1910	ASTM D 751
NAVISTAR Packing and Shipping Std. D-13	CFR 49, Part 571.302	ASTM D 1117
NAVISTAR MPAPS B-50	AATCC-30, Section II	ASTM E 1050
NAVISTAR MPAPS P-9544	ASTM C 384	SAE J1352
NAVISTAR MPAPS P-9543	ASTM D 461	ASTM D 1056
	ASTM D 1667	ASTM D 412

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4.0 REQUIREMENTS

4.1 Construction

4.1.1 This insulation material for Type IA and Type II shall be a felted fiber padding firmly needled or bonded, consisting of a homogeneous mixture of synthetic and natural fibers, garnetted in a parallel or random orientation, with both sides suitable for adhering to other materials such as carpet or floor mat rubber stock. The bonded padding shall contain 18-22% by weight of a non-water soluble resin.

4.1.2 The insulation material for Type IB shall be a closed cell PVC/NBR foam product with excellent moisture resistance with both sides suitable for adhering to other materials such as carpet or floor mat rubber stock.

4.2 Dimensions

Thickness of the material shall be indicated on the engineering drawing. Nominal thicknesses available are shown below.

Nominal	mm,	6.4	9.5	12.7	19.1	25.4
Thickness	inch,	1/4	3/8	1/2	3/4	1

4.3 Property And Performance Requirements

4.3.1 Density

4.3.1.1 Type IA and Type II

4.3.1.1.1 METHOD: ASTM D1117, Sample 30 x 30 cm (12 x 12 in).

4.3.1.1.2 REQUIRED: 72.1 kg/m³ (4.5 lb/ft³) minimum.

4.3.1.2 Type IB

4.3.1.2.1 METHOD: ASTM D 1056, Sample 30 x 30 cm (12 x 12 in).

4.3.1.2.2 REQUIRED: 64–88.1 kg/m³ (4.0 – 5.5 lb/ft³)

4.3.2 Tensile Strength

4.3.2.1 Type IA and Type II

4.3.2.1.1 METHOD: ASTM D 751 Grab Method

4.3.2.1.2 REQUIRED: WMD: 55 kPa (8 psi) minimum; AMD: 35 kPa (5 psi) minimum.

4.3.2.2 Type IB

4.3.2.2.1 METHOD: ASTM D412

4.3.2.2.2 REQUIRED: 40 psi minimum

4.3.3 Splitting Resistance (Types IA and II only)

4.3.3.1 METHOD: ASTM D 461, Sample 5 x 15 cm (2 x 6 in).

4.3.3.2 REQUIRED: 4.45 N (1.0 lbf) minimum average, Peak of four samples, in both directions (AMD and WMD).

4.3.4 Air Flow Resistance (Types IA and II only)

4.3.4.1 METHOD: Using a 30 x 30 cm (12 x 12 in) sample, direct a stream of air towards the center portion at an angle of 45°, using 620-690 kPa (90-100 psi) air. The air nozzle shall have an opening of 2.16-2.41 mm (.085-.090 in) and shall be held 10 cm (4 in) above the surface for a min of 20 seconds.

4.3.4.2 REQUIRED: No visible delamination or separation when tested in two directions 180° apart.

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