

NAVISTAR, INC.		
Material, Parts, and Process Specifications (MPAPS)		NUMBER: MPAPS DT-19
		Former Designation: <i>N/A</i>
Material-Related Interior Part Performance Requirements		CURRENT REV No.: 1702
		DATE: Feb. 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 SCOPE

This specification defines the materials related part performance requirements for all hard trim, mold in color (MIC) interior plastic components including, but not limited to: interior trim panels, moldings, overhead and floor consoles, hard instrument panel (IP) trim, etc.

1.1 Restricted Chemical Substances

All product supplied to the requirements of this specification must comply with the requirements of the MPAPS B-50 specification.

2.0 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.

NAVISTAR MPAPS B-50	MPAPS DT-12
FMVSS 302	AATCC Evaluation Procedure 1
ISO 22088-3	ISO 105-A02
ISO 527-2	MPAPS DT-16
ASTM D 3012	MPAPS GT-31
SAE J1756	MPAPS DT-18

3.0 REQUIREMENTS AND PROCEDURES

Note: *All requirements and procedures listed in this document are superseded by specifications on part drawings. If a discrepancy exists, the requirements on specific drawings take precedent. Additionally, all results and data from testing must be provided to Navistar Design or Materials Engineering for approval.*

3.1 Flammability (FMVSS 302)

3.1.1 Application. All interior components as defined by federal regulation.

3.1.2 Requirement. Components must comply with the Federal Motor Vehicle Safety Standard (FMVSS) 302: Flammability of Interior Materials. Certification documentation must be submitted to Navistar Design Engineering for approval.

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3.1.3 Procedure. Test to procedure called out in FMVSS 302. Maximum allowed burn rate of 100 mm/minute. Results must be submitted to Navistar Design or Materials Engineering for approval.

3.2 Colorfastness to Artificial Light (MPAPS GT-31)

3.2.1 Application. All parts with visible surfaces in all color variants must be tested. All materials must be tested within a given component.

3.2.2 Requirement. The material shall not show any surface deterioration, minimal color or gloss change, warpage, sag, staining, delamination, or other undesirable effects after exposure. Objectionable color change is defined as a measured color change of $\Delta E \geq 3$ measured at the same location before and after exposure or on an as-received sample and exposed sample. Spectrophotometric measurements of samples shall be taken with the specular component included (SPI) or with a 0°/45° (45°/0°) geometry. The colorimetric data shall be calculated using CIE 1964 10° observer data for Illumination D₆₅. Three points must be measured and averaged in a general region per measurement reported. Exposed samples may be washed with water and blotted dry with a clean cloth prior to measurement.

3.2.3 Procedure. All materials shall be tested per MPAPS GT-31 Method A for Interior Exposure using a Window-Q filter with an irradiance control point of 0.55 W/m² at 340 nm. Energy requirements are defined in Table A.1 of MPAPS GT-31.

3.3 Resistance to Scratch and Mar (MPAPS DT-16)

3.3.1 Application. All parts with visible surfaces in all color/grain variants must be tested. Test evaluation should be completed no later than RA on plaque test samples. All materials must be tested within a given component. Test method B is the preferred method for scratch whitening as it provides an objective value.

3.3.2.1 Requirement. Test Method A: Taber®. All scratch lines are to be evaluated with the visual inspection method defined in MPAPS DT-16. Both line rating and digital images of the lines must be submitted to Navistar Engineering for each of the loads measured.

Requirement for Scratch Resistance of Interior Trim			
		Force (N)	Acceptance Criteria
IP	Scratch	2	2
	Whitening/ Color Change	15	1
	Mar	2	2
Hard Trim	Scratch	2	2
	Whitening/ Color Change	7	1
	Mar	2	2

3.3.2.2 Requirement. Test Method B, Erichsen®. Both ΔL values and digital images of the lines must be submitted to Navistar Engineering for each of the loads measured.

Scratch whitening $\Delta L < 1.5$ (plaque testing)

$\Delta L < 2.0$ (coupons cut from molded part)

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