



ENGINEERING MATERIAL SPECIFICATION

INTERIOR PARTS PAINTER APPROVAL PROCESS

WSS-M2P195-A

1. SCOPE

The interior parts painter approval process will be used as a guideline for approving interior parts painters.

2. APPLICATION

This document defines the process and requirements for approving a new interior parts painter. The painter must meet or exceed the requirements outlined in this document.

2.1 DEFINITIONS

2.1.1 New Painter

A new painter is defined as one that has not had their material/process specific facility capability approved by Ford.

2.1.2 Worldwide Product Engineering Materials Approved Source List (ASL)

The ASL catalogs materials that have been approved against referenced Material Specifications. It identifies suppliers, products, and includes information on the toxicology and environmental approval of each material. The Approved Source List can be found at www.MATS@ford.com.

2.1.3 AAR-Appearance Approval Requirements

2.1.4 GMAP - Global Material Approval Process

2.1.5 MATS - Materials and Toxicology System

2.1.6 MCDCC-Material Color Durability Compliance Certification

2.1.7 PFMEA-Process Failure Mode Effects Analysis

2.1.8 8D-Eight Discipline Solving Problem Method

3. REQUIREMENTS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

Date	Action	Revisions	Rev. 0
2013 06 04	Released		J. Bilko, NA

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3.1 PROCESS REQUIREMENTS

3.1.1 IDENTIFY PARTS PAINTER

- Tier 1 part supplier must identify a painter for the parts and then inform Global Materials Engineering of the selection and the paint process to be used.
- Parts painter and/or Tier 1 supplier must identify the paint technology (1K, 2K, clear coat ...etc.) and the approved paint manufacturer that will be used.
- Ford approved paint technologies must be used per the Ford Approved Source List (ASL).
- If the painter has been previously approved by Ford, then this process has already been followed and paint performance testing per WSS-M2P188-A1 Table 1 is the only requirement. Contact Materials Engineering, Testing & Standards for a list of approved paint applicators.
- If the painter is a new source then the following approval process must be followed.

Note: MCDCC forms are for color durability approval of approved paint technologies and should be supplied to the painter by the paint supplier for AAR compliance.

3.1.2 NEW PAINTER FACILITY REQUIREMENTS

- Minimum facility requirements are:
 - Adequate parts cleaning procedure
 - Fully enclosed paint system
 - Automated/manual application (automated preferred due to quality concerns of manual application)
 - Central paint distribution system (metering capability for 2K systems)
 - 2-zone oven (confirm part time at temperature) or equivalent
 - QC lab
- The painter must request an onsite facility assessment or submit detailed documentation of their process to Global Materials Engineering utilizing the [Interior Painter Facility Checklist](#).

3.1.3 NEW PAINTER PROCESS VALIDATION/QUALITY TESTING

The following data must be submitted to Global Materials Engineering by the parts painter.

- Process flow, control plan, and oven profile (part time/temperature data).
- Process Failure Mode Effect Analysis (PFMEA)
- Detailed description of rework/repair procedures.
- Validation/Quality data either by historical statistical process control data (SPC) or as defined by:
Recommended tests including Color, Film Thickness (ASTM B 487), Gloss (FLTM BI 110-01), Initial Adhesion (FLTM BI 106-01 Method D), Naphtha crocking for 2K paints (FLTM BN 107-01, 10 cycles) and 50/50 IPA/water crocking for 1K paint (FLTM BN 107-01, 10 cycles). All data and tested parts must be submitted to Global Materials Engineering for review.



3.1.4 NEW PAINTER PART PERFORMANCE REQUIREMENTS

- Following Global Materials Engineering approval of the painter's process, the Tier 1 and the painter must conduct performance testing on production representative parts per WSS-M2P188-A1 (plastic substrates).
- Tested samples and test data per the WSS-M2P188-A1 must be submitted to Global Materials Engineering along with The Interior Painter Bill of Materials Form.



3.1.5 MATERIAL ENGINEERING REVIEW

- Global Materials Engineering will determine if the tested parts conform to the applicable specifications.
- If no, the painter is responsible to conduct a root cause analysis on the failed parts and complete an 8-D.
- If yes, Global Materials Engineering will sign the Paint Facility Certification Notice as evidence of approval.



3.1.6 DATA STORAGE ON MATERIALS SHARED DRIVE

- Global Materials Engineering will store a digital copy of the following documents on the Materials Shared Drive for the approved part painter.
 - Paint Facility Certification Notice
 - Interior Painter Bill of Materials Form
 - Interior Painter Facility Checklist
 - Control Plan
 - PFMEA
 - Oven curves
 - Validation data
 - Performance Specification data
- Update the Painter Facility Status Matrix with applicator approval (hyperlink located in the Materials Sharepoint site).