



PERFORMANCE, INSTRUMENT CLUSTER ASSEMBLY

WSS-M15P52-A

1. SCOPE

This specification defines the performance requirements for the instrument cluster assembly and visible components behind and including the lens.

2. APPLICATION

This specification was released originally for instrument clusters.

Testing must be conducted on parts per Table 1, which defines sample size and testing required. Chrome components outside of the lens must meet WSS-M1P83-E1/Latest.

Painted components outside of the lens must meet WSS-M2P188-B1/Latest

Foil / Film covered surfaces outside of the lens must meet WSS-M15P34-E/Latest

Graphic printing outside of the lens must meet WSS-M2P158-A1/Latest

Molded-in-color plastic components outside of the lens must meet WSS-M15P4-G/Latest

2.1 LIMITATIONS

HALS (Hindered Amine Light Stabilizers) is prohibited in PC/ABS resins. HALS UV stabilizer degrades the polymer in the presence of moisture causing cracking/crazing of the resin.

3. REQUIREMENTS

3.1 APPROVED SOURCES

This specification is performance based and does not have approved sources.

3.2 SYSTEM COMPONENTS

3.2.1 Resistance to Scratch

Initial Hardness of all painted parts within this assembly must be cured/dry at time of packing to withstand normal handling and shipping without marring.

3.2.2 Substrate

ABS, Polycarbonate, Polypropylene or as specified on Engineering Drawing. Substrate must not contain any additives, or mold release agents which will adversely affect the in mold decorating process.

3.2.3 Aging

Test panels or test specimens prepared for investigations according to this specification must be aged for at least 72 h at 23 +/- 2 °C or 16 h at 45 +/- 1 °C prior to testing.

Date	Action	Revisions	Rev. 03
2017 10 27	Revision	See Summary of Revisions	M. Nestorowich, FNA
2016 11 28	Editorial	Corrected Footer	A.Collins, NA
2009 02 04	Activated	New Specification Replacing WSS-M2P184-A	See Summary of Revisions



3.3 APPEARANCE

Color, gloss, grain, tactile effect and surface finish shall match master trim sample and/or master appearance sample as approved by Design Studio.

The coating shall exhibit no craters, pinholes, solvent popping, seediness, abnormal roughness, excessive flow or any other detrimental defect.

- 3.3.1 Color
(FLTM BI 109-01 Visual Assessment)
(SAE J1545, Three-Angle CMC)

Shall match the Master Approved Sample.

- 3.3.2 Gloss Report
(FLTM BI 110-01, ASTM D523)

As released by Engineering:

A:	20° Glossmeter,	min 92
B:	60° Glossmeter	76 - 84
C:	60° Glossmeter	66 - 74
D:	60° Glossmeter	58 - 66
E:	60° Glossmeter	47 - 53
F:	60° Glossmeter	33 - 38
G:	60° Glossmeter	17 - 23
H:	60° Glossmeter	7 - 13
J:	60° Glossmeter	4 - 6
K:	60° Glossmeter	2 - 4
L:	60° Glossmeter	0.5 - 2.0
N:	60° Glossmeter	1.8 - 2.4
P:	60° Glossmeter	1.6-2.0
R:	60° Glossmeter	1.2-2.0
L	60° Glossmeter	0.5-2.0
Z	60° Glossmeter	N/A

The color, pattern and finish shall match the approved Design Center master sample, or shall be as specified on the Engineering Document.

- 3.3.3 Ink Film Thickness Report
(ASTM B487, PELT or equivalent)

Coating thickness must be sufficient to meet all requirements of this material specification.

3.4 ENVIRONMENTAL TESTING

- 3.4.1 Sample Preparation

All parts shall be fully trimmed including all components packaged in the environment (e.g. speakers, hardware, wiring, etc.) and assembled onto actual or representative production support foundations that include not only all attaching points but also any boundary conditions that may restrict movement, unless otherwise specified by the affected Materials Engineering Activity. The retention methods, attachments and supporting garnish molding (if any), shall be the same as proposed for production.