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TEST REPORT

PRODUCT: FT 1149X
SUPPORT: FLOCK
SUBSTRATE: ABS
CERT NO.: 221213 - 1125



FORD WSS-M99P32-E1
OEM Rev Date: Mar 21
Performance, Acoustical And Insulators, Interior Assemblies
Above the Belt
Horizontal or Vertical Parts Above the Belt Line - Pillars; upper quarter panels; hard instrument panels

TAPE REQUIREMENTS:

SECTION:	Specification	Results	Status
SECTION: Thickness Thickness, Flock & Adhesive	0.9 +/- 2 mm	0.78	Pass
SECTION: 3.3 Weight 3.3.2 Weight per Unit Area (Foams) - Adhesive Composite 3.3.2 Weight per Unit Area (Non-Foams) -	Reported kg / m² Reported kg / m²	Minimum 365.8 Average 368.8 Minimum 232.3 Average 238.3	Reported Reported
SECTION: 3.4 Odor 3.4.1 Odor, Condition 1 - 24 hrs @ RT, Deionized Water 3.4.2 Odor, Condition 2 - 24 hrs @ 40°C, Deionized Water 3.4.3 Odor, Condition 3 - 2 hrs @ 65°C	3 Max Rating 3 Max Rating 3 Max Rating	FLTM BO 131-03* (a) Rating 1.5 Slightly Perceptible Rating 2 Perceptible, Not Disturbing Rating 2 Perceptible, Not Disturbing	Pass Pass Pass
SECTION: 3.5 Fogging 3.5, 3 hrs @ 100°C, 21°C Cooling, 16 hrs @ RT	> 70 Units	SAE J1756 96.6	Pass
SECTION: 3.6 Flammability 3.6, Initial, Component	< 100 mm / min	ISO 3795* (b) < B 25	Pass
SECTION: 3.7 Construction Properties SECTION 3.7 Resistance To Mildew 3.7.1, 7 Days @ 38°C / 98% RH	No Evidence of Mildew Growth or Objectionable Odor	No Significant Odor or Mold Growth	Pass
SECTION: 3.7.2 Environmental Testing 3.7.2.1, Short Term Environmental Cycling 5 hrs @ -30°C 30 mins @ RT 5 hrs @ 80°C 30 mins @ RT 2 hrs @ 50°C / 95% RH 30 mins @ RT 5 hrs @ -30°C	No Wrinkling, Blistering, Warping, Staining, Odor or Delamination	FLTM BO 040-01 A* (c) Good, Stable, No Ooze, Odor, Warping or Lifting	Pass
3.7.2.2, Long Term Environmental Cycling, 7 Days @ 80°C		FLTM BO 040-01 B* (c) Good, Stable, No Ooze, Odor, Warping or Lifting	Pass
SECTION: 3.7.2 Adhesion 3.7.2, Ambient, 20 minutes 3.7.2.1, Short Term Environmental Cycling, Long Term Cycling, 7 Days @ 80°C 3.7.2.2, Long Term Cycling, 7 Days @ 80°C	4 N / cm 11.6 N / cm 11.6 N / cm	ASTM D1000 per MAT SPEC 6.3 11.6 16.1	Pass Pass Pass
SECTION: 3.8 Physical Properties 3.8.1, Original Breaking Strength	35 N / In min	ASTM D5034* (d) 285.1	Pass
SECTION: 3.8 Climate Control Applications 3.8.1.1, Change After Short Term 3.7.2.1 Aging 3.8.1.2, Change After Long Term 3.7.2.2 Aging	< 30 % Change < 30 % Change	ASTM D5034* (d) 283.3 290.6	Reported Reported
SECTION: 3.8.2 Tear Resistance (Foam Materials Only) 3.8.2, Finished Part, Tear Resistance (Foam Materials Only)	Reported N / m	ASTM D3574 F* (e) Not Applicable	Not Applicable
SECTION: 3.8.3 Compression Force Deflection Test (Foam Materials Only) Compression Force Deflection Test (Foam Materials Only) 3.8.3.1, Finished Part, Compression Force Deflection	250 mm (10 in)	Not Applicable	Not Applicable
SECTION: 3.8.4 Constant Deflection Compression Set Test (Floor Foam Materials Only) 3.8.4.1, Original Breaking Strength 3.8.4.2, Change After Short Term 3.7.2.1 Aging 3.8.4.3, Change After Long Term 3.7.2.2 Aging	Report Value % < 40 % Change < 10 % Change	Not Applicable Not Applicable Not Applicable	Not Applicable Not Applicable Not Applicable
SECTION: 3.8.5 Peel Strength (Laminates Only) 3.8.5, Peel Strength (Engine and Underbody Laminates Only)	6 N / 50 mm min	FLTM BN 151-05* (f) 38.3	Pass
SECTION: 3.8.6 Moisture Absorption 3.8.6, Suspended 24 hrs @ 38°C / 95% RH	30 % max	Not Applicable 0.8	Pass
SECTION: 3.8.7 Fiber Loss Test for Insulation (Fibrous Materials Only) 3.8.7, Fiber Loss Test	0.4 mg / cm² max	FLTM BN 058-01* (g) 0.1	Pass
SECTION: 3.9 Adhesion Strength 3.9.1 Original 3.9.2 After Short Term Environmental Cycling, 168 hrs @ 100°C 3.9.2 After Long Term Environmental, 168 hrs @ 100°C	300 N / m - No Adhesion Failure 225 N / m - No Adhesion Failure 225 N / m - No Adhesion Failure	ASTM D3330 536.7 823.7 641.1	Pass Pass Pass

CERTIFIED BY:
Dave Nichols Jr, Automotive Lab Technician

ISSUE DATE: 1-1-24

Materials tested to OEM requirements @ 72°F +/- 2°F and 50% RH +/- 5%. Test uncertainty and minor exclusions are available online or upon request.
This certificate or report shall not be reproduced except in full, without the written approval of the Avery Dennison Performance Tapes.
Status opinion based upon measurements obtained by personnel with appropriate training and professional experience.



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TEST METHOD EXPLANATION:

SECTION: **Thickness**

* This been added per Mat Spec drawing callouts

SECTION: **3.4 Odor**

FLTM BO 131-03* (a)

*(a) Test performed by accredited personnel. Due to the nature of this test, accreditation to the specific test method has not been deemed necessary or desired (subjective)

SECTION: **3.5 Fogging**

SAE J1756

SAE J1756 is called out on our Scope

SECTION: **3.6 Flammability**

ISO 3795* (b)

*(b) ISO 3795 is technically equivalent to FMVSS 302. Our lab scope includes FMVSS 302, which was used.

SECTION: **3.7.2 Environmental Testing**

FLTM BO 040-01 A* (c)

*(c) FLTM BO 040-01 A is outside of our scope however we are accredited to perform environmental simulations under Customer Specifications and ASTM D4332 which are listed on our scope.

SECTION: **3.7.2 Environmental Testing**

FLTM BO 040-01 B* (c)

*(c) FLTM BO 040-01 B is outside of our scope however we are accredited to perform environmental simulations under Customer Specifications and ASTM D4332 which are listed on our scope.

Adhesion per ASTM D1000 has been added per Mat Spec drawing callouts

SECTION: **3.8 Physical Properties**

ASTM D5034* (d)

which are listed on our scope.

SECTION: **3.8.2 Tear Resistance (Foam Materials Only)**

ASTM D3574 F* (e)

This test is not applicable to the substrate involved.

SECTION: **3.8.3 Compression Force Deflection Test (Foam Materials Only)**

This test is not applicable to the substrate involved.

SECTION: **3.8.4 Constant Deflection Compression Set Test (Floor Foam Materials Only)**

This test is not applicable to the substrate involved.

SECTION: **3.8.5 Peel Strength (Laminates Only)**

FLTM BN 151-05* (f)

D3300 which are listed on our scope.

SECTION: **3.8.6 Moisture Absorption**

No method addressed within Ford WSS M99P32-E1

SECTION: **3.8.7 Fiber Loss Test for Insulation (Fibrous Materials Only)**

FLTM BN 058-01* (g)

*(g) FLTM BN 058-01 is outside of our scope however the test was performed by accredited personnel.

SECTION: **3.9 Adhesion Strength**

FLTM BO 040-01

*(h) FLTM BO 040-01 is outside of our scope however the test was performed by accredited personnel.

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Status opinion based upon measurements obtained by personnel with appropriate training and professional experience.