



PERFORMANCE, SEATING FABRIC FOAM BI-LAMINATE

WSS-M8P18-C1

PERFORMANCE, SEATING FABRIC FOAM TRI-LAMINATE

WSS-M8P18-C2

1. SCOPE

These specifications define the performance requirements for interior seating trim fabrics.

2. APPLICATION

These specifications were released for materials used as interior seating trim fabrics for the areas of automotive seat cushions, bolsters and inserts, and backs.

WSS-M8P18-C1 is defined as a bi-laminate composite with fabric/foam, which could include PE (polyethylene) film added to foam backing for the manufacturing process of sewing and seat builds.

WSS-M8P18-C2 is defined as a tri-laminate composite with fabric/foam/backing, which includes backing examples of scrims such as warp or circular knits, or non-woven materials.

3. REQUIREMENTS

3.1 APPROVED SOURCES

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

3.2 CONDITIONING AND TEST CONDITIONS

All test values are based on material conditioned for not less than 24 h prior to testing in a controlled environment of 23 +/- 2 °C and 50 +/- 5% relative humidity. Testing of the material should occur in the conditioning environment or soon after removal.

3.3 CONSTRUCTION

In addition to the requirements listed herein, the face fabric shall meet all requirements of the applicable material specification. The material specification shall take precedence over the performance specification, for any requirement that differs from the performance specification.

3.3.1 Face Fabric, Back Coating, and Scrim construction must be documented in the Material specification.

3.3.2 Fabrics approved under C1/C2 and used in other interior applications may need to meet the Applicable Performance specifications such as:

Assembly Performance, Instrument Panel and Soft Interior WSS-M15P45-C/latest

Date	Action	Revisions	Rev. 0
2017 11 13	Released		



Documents

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3.3.3 Materials for the seating application of gussets, low side facings and other non-visible areas are tested to Performance, Seating Fabric Low Visibility for B/C Surface Applications WSS-M8P31-A1/A2/latest.

3.3.4 Contact the appropriate Materials Engineering department based on Global Lead for the Vehicle Engineering or a Regional Program for Bi or Tri-laminate composition requirements for construction package approvals. Any development that deviates from the Global Lead Region should contact the regional Materials Engineering Department.

3.3.5 For lamination requirements refer to Performance Lamination for Seating and Interior Trim Specification WSS-M8P30-A1.

3.4 FABRIC TRIM FEASIBILITY

Fabrics approved under this specification must pass the Interior Seating Trim Cover Feasibility Process. Refer to the Regional Core Seat Engineering Team for the Process Guidelines and Requirements.

3.5 FABRIC DEVELOPMENT CONSIDERATIONS

3.5.1 New fabric development must adhere to Stretch and Set values as stated in para. 3.12.10. Model year implementation 2022.

3.5.2 Regions with high TGW's for linting should require Soil Repellent (SR) finish, as data has shown this improves lint adhesion performance.

3.5.3 Using 100% Air Textured yarns can make fabrics more susceptible to linting.

3.5.4 Composition Percent
(ASTM D629)

The yarn composition and fiber blend of material supplied to this specification shall correspond in quality and ratio to that specified in the individual material specification.

3.6 TEST PLAN

3.6.1 Unless otherwise directed by Materials Engineering, all initial evaluation and testing shall be conducted with 3 mm nominal thickness at 25-29 Kg/m³ (1.7lb/ft³), 35-45 ILD with nominal 40, from an approved Ford foam source.

See Table 1, for construction and color approval test requirements.

3.7 APPEARANCE

The color, pattern, hand and face construction shall match the approved Corporate Design Master sample. No modifications are allowed once the Master Sample is developed and MCDCC's are signed without notifying Color and Materials and Materials Engineering.

All regional manufacturing locations for the same pattern must match the approved Corporate Design Master sample.



3.8 VEHICLE USAGE DEFINITIONS

Testing and evaluation must comply with the following vehicle call outs defined per category:

Passenger Vehicles include platforms for cars, SUV's, and CUV's, such as but not exclusive to Focus, Mondeo, Fusion, Ka, Ecosport, Expedition, and Edge.

Commercial, and Truck include platforms for trucks, taxi, cargo vans such as but not exclusive to F-150, Transit, Ranger, Police and Taxi.

3.9 FOGGING (PHOTOMETRIC)

(SAE J1756, 3 h at 100 °C heating, 21 °C
Cooling plate, post testing conditioning 16 h)

Fog Number 70 min

Formation of clear film, droplets or crystals is cause for rejection

For shipping, all materials or parts shall be sampled immediately after manufacture, then bagged in a zipper- or slide-sealed polyethylene (PE) bag, PE-coated aluminum bag or wrapped in aluminum foil prior to bagging. Test specimens shall be cut, then stored in a clean, open environment for 14-28 days. After 14-28 days of air exposure, the specimens shall be tested immediately or re-bagged until testing can be performed. Bagged materials or parts must be labelled on the outside of the bag with the following information, and included in the test report: supplier, contact information, product code/trade name or part number, manufacturing location, date of manufacture, shipping date, start and end dates of conditioning period and test date.

Sample shall be tested as part of a production assembly composite if it is 100% bonded. If not 100% bonded, test each component separately. Parts for testing must be labelled with supplier and date of manufacture.

3.10 ODOR

(FLTM BO 131-03, Variant C)

Condition 1	Rating 3 max
Condition 2	Rating 3 max
Condition 3	Rating 3 max

Sample shall be tested as part of a production assembly composite if it is 100% bonded. If not 100% bonded, test each component separately.

3.11 FLAMMABILITY

(ISO 3795, Test 5 Samples)

Burn Rate 100 mm/minute max

Sample shall be tested as part of a production assembly composite if it is 100% bonded. If not 100% bonded, test each component separately.



3.12 PHYSICAL PROPERTIES

- 3.12.1 Weight (FLTM BN 106-01) Report in g/m²
- Face Fabric must be reported without lamination
Backcoating levels must be reported
- 3.12.2 Fabric Count (ASTM D3887) Report in Yarns/10 cm
- 3.12.3 Breaking Strength (ASTM D5034, Grab Method, 305 mm/minute jaw speed, average of 3 samples, each direction)
- 3.12.3.1 As Received 400 N min
- 3.12.3.2 Fabrics with Perforation Report Only
- Fabrics that have undergone a perf process are not required to meet the 400 N requirement. Materials and Seat Engineering will do an evaluation with each new perf design as to the feasibility and strength requirement for production.
- 3.12.3.3 Breaking Strength after Resistance to Interior Weathering 350 N min.
(after exposure according to para 3.13.1 at 977.6 kJ/m²,
Perform Breaking Strength as stated in para 3.12.3.1)
- 3.12.4 Seam Strength (FLTM BN 119-01, average of 3 samples)
- 8 mm +/-2mm Seam Allowance 400 N min
- 6 mm +/-2mm Seam Allowance 400 N min
- 3 mm +/-1mm Seam Allowance Report Only
- Fabrics with Perforation Report Only
- Fabrics that have undergone a perf process are not required to meet the 400 N requirement. Materials and Seat Engineering will do an evaluation on each perf design as to the feasibility and strength requirement for production.
- Fabric breakage may occur at the grips only. No fabric tear may appear near the seam, or indicate yarn pull out from the seam, even if the 400 N is met.