



PERFORMANCE, NETTING ASSEMBLY, INTERIOR

WSS-M15P40-B1

1. SCOPE

The material performance defined by this specification is for interior netting assemblies.

2. APPLICATION

This specification was released originally for materials used for cargo/convenience nettings including bungee, netting, and webbing.

3. REQUIREMENTS

3.1 APPROVED SOURCES

This specification requires the use of approved sources. Only the sources identified on the Ford Approved Source List (ASL) can be used when this specification is listed on the drawing, CAD file, or other documents. The list of approved sources is located within Ford at www.mats.ford.com or available externally through a Ford Materials Engineer.

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 shall be conducted within 24 hours of conditioning.

3.3 NETTING PERFORMANCE

In addition to the requirements listed herein, the assembly shall meet all functional requirements outlined by Engineering, such as IT-0401 (RQT-010500-013161).

3.4 TESTING

All evaluations shall be conducted on test specimens taken from production representative netting assemblies. See Table 1 for testing requirements and sample size. Final determination of pass/fail criteria for the italicized items will be made by Ford Materials Engineering.

3.5 APPEARANCE

The color, pattern, and finish shall match the approved Corporate Design master sample.

3.6 COMPOSITION (ASTM D 629)

Report

3.7 PHYSICAL PROPERTIES - NETTING

3.7.1 Breaking Strength
(ASTM D5034, rate of 250 mm/min,
except as below)

Report Average
Warp and Weft Direction

Date	Action	Revisions	Rev. 0
2018 07 27	Released		



Documents
L. Sinclair, NA
Document Sharing Hub



Use two "J" hooks, each 75 mm long made from Number 8 gauge (4.2 mm) diameter hard drawn spring steel wire or equivalent mounted in steel mandrills (See Figure 1 for J hook orientation). The "J" hooks shall be free of nicks or burrs to prevent damage to the yarn.

The breaking of any netting leg shall not result in unravelling beyond the crossover.

- 3.7.1.1 Retained Breaking Strength (FLTM BO 116-01, exposure based on Criteria below, then test per 3.7.1) 80% of Original min Warp and Weft Direction

In Vehicle Sunlight Exposure Level	Test Exposure
Severe Exposure: Instrument panel topper	3609.6 kJ/m ²
Heavy Exposure: Instrument panel lower top cover	2406.4 kJ/m ²
Medium Exposure: Instrument panel lower	977.6 kJ/m ²
Mild Exposure: Lower seats, seat backs, cargo opening convenience net, floor console,	601.6 kJ/m ²
Low Exposure: Luggage compartment, lower trim	225.6 kJ/m ²

3.8 PHYSICAL PROPERTIES - WEBBING

- 3.8.1 Breaking Strength Report Average Warp Direction
(ASTM D5034, 76 mm jaw separation, rate of 250 mm/min
Except use Fixture shown in Figures 2-4 in the Appendix)

- 3.8.1.1 Retained Breaking Strength (FLTM BO 116-01, exposure based on Criteria below, then test per 3.8.1) 80% of Original min Warp Direction

In Vehicle Sunlight Exposure Level	Test Exposure
Severe Exposure: Instrument panel topper	3609.6 kJ/m ²
Heavy Exposure: Instrument panel lower top cover	2406.4 kJ/m ²
Medium Exposure: Instrument panel lower	977.6 kJ/m ²
Mild Exposure: Lower seats, seat backs, cargo opening convenience net, floor console,	601.6 kJ/m ²
Low Exposure: Luggage compartment, lower trim	225.6 kJ/m ²

3.9 PHYSICAL PROPERTIES - BUNGEE

- 3.9.1 Breaking Strength Report Average
(ASTM D5034, 76 mm jaw separation, rate of 550 mm/min, fixtures Figure 5-6 in the Appendix)



- 3.9.1.1 Retained Breaking Strength 80% of Original min
(FLTM BO 116-01, exposure based on
Criteria below, then test per 3.9.1)

In Vehicle Sunlight Exposure Level	Test Exposure
Severe Exposure: Instrument panel topper	3609.6 kJ/m ²
Heavy Exposure: Instrument panel lower top cover	2406.4 kJ/m ²
Medium Exposure: Instrument panel lower	977.6 kJ/m ²
Mild Exposure: Lower seats, seat backs, cargo opening convenience net, floor console,	601.6 kJ/m ²
Low Exposure: Luggage compartment, lower trim	225.6 kJ/m ²

- 3.9.2 Bungee Elongation Report (%)
(ASTM D5034, 76 mm jaw separation,
rate of 550 mm/min, fixture in Figure 5-6 in the Appendix)

Elongate bungee sample until force of 35N is reached.

Elongation is determined using the following equation:

$$\% \text{ Elongation} = \frac{(\text{Length (mm) at 35N}) - 76 \text{ mm}}{76 \text{ mm}} \times 100$$

- 3.9.2.1 Retained Elongation 80% of Original min
(FLTM BO 116-01, exposure based on
Criteria below, then test per 3.9.2)

In Vehicle Sunlight Exposure Level	Test Exposure
Severe Exposure: Instrument panel topper	3609.6 kJ/m ²
Heavy Exposure: Instrument panel lower top cover	2406.4 kJ/m ²
Medium Exposure: Instrument panel lower	977.6 kJ/m ²
Mild Exposure: Lower seats, seat backs, cargo opening convenience net, floor console,	601.6 kJ/m ²
Low Exposure: Luggage compartment, lower trim	225.6 kJ/m ²

3.10 COLOR PROPERTIES

- 3.10.1 Resistance to Crocking
(FLTM BN 107-01, AATCC Evaluation Procedure 2)

Dry
Wet

Rating 4 min
Rating 4 min





3.10.2 Resistance to Interior Weathering
(FLTM BO 116-01, AATCC Evaluation Procedure 1)

Rating 4 min

In Vehicle Sunlight Exposure Level	Test Exposure
Severe Exposure: Instrument panel topper	3609.6 kJ/m ²
Heavy Exposure: Instrument panel lower top cover	2406.4 kJ/m ²
Medium Exposure: Instrument panel lower	977.6 kJ/m ²
Mild Exposure: Lower seats, seat backs, cargo opening convenience net, floor console,	601.6 kJ/m ²
Low Exposure: Luggage compartment, lower trim	225.6 kJ/m ²

3.10.3 Soiling and Cleanability
(FLTM BN 112-08, AATCC Evaluation Procedure 2)

Standard Soil
Grease
Coffee

Rating 4 min
Rating 4 min
Rating 4 min

3.10.4 Long Term Environmental
(FLTM BO 040-01 Procedure B, 80 °C)

Rating 4 min

3.11 ODOR
(FLTM BO 131-03)

Condition 1
Condition 2
Condition 3

Rating 3 max
Rating 3 max
Rating 3 max

3.12 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.

3.13 FLAMMABILITY
(ISO 3795)

Burn Rate

100 mm/minute max