## DESCRIPTION *(all sizes and weights are nominal)*

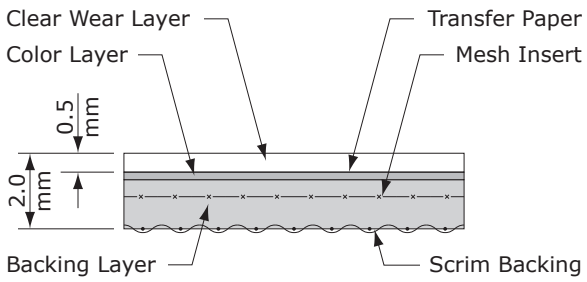
| | | |
|---|---|---|
| **Part Number:** | MS*xx* | |
| **Thickness:** | 0.080 in. | (2.0 mm) |
| **Width:** | 6 ft. | (1.8 m) |
| **Length:** | 60 ft. | (18.3 m) |
| **Weight:** | 0.7 lbs./sq. ft. | (3.3 kg/m$^2$) |

**Color Numbers (*xx*):**
10 Dorato
11 Grigio
12 Mare
13 Noce
14 Carbone
15 Russo

## PROPERTIES

- ▶ MED Certified (#2012-007-MED-R2)
- ▶ USCG Certified (#164.117 / EC0849 / 2012-007-MED-R2)
- ▶ Meets FMVSS 302 (per 49 CFR §571.302)
- ▶ Phthalate free (REACH compliant, SVHC free)
- ▶ Features GreenAir® (low VOC) formulation

## STRUCTURE *(all measurements are nominal; not to scale)*




## TEST DATA *(refer to the last page for additional test information)*

| **Abrasion Resistance** | **Result** | |
|---|---|---|
| ASTM F510: 1,000 cycles | 0.12 g (0.45%) loss | |
| **Chemical Resistance** *(each reagent tested individually)* | **Result** | |
| | ASTM F925: 5 min. | ASTM F925: 24 hr. |
| • Ammonia (5% $NH_4OH$)<br>• Bleach (5.25% NaOCl)<br>• Diesel Fuel<br>• Hydraulic Oil<br>• Motor Oil<br>• Mustard<br>• Red Wine<br>• Transmission Oil<br>• Urea (20% Solution) | No Change | No Change |
| • Acetone | Slight Change | Slight Change |
| **Static Coefficient of Friction** | **Result** | |
| ASTM D2047: No Floor Finish Applied | Neolite: 1.00 | |

⚠**WARNING:** Cancer and Reproductive Harm – www.P65Warnings.ca.gov.



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The following list contains brief summaries, plus additional information as needed, for the majority of the test standard noted in Lonseal's **Product Specifications**. Please refer to the actual standard for complete information. While Lonseal makes every effort to ensure consistency in production, some variations in performance can occur between production lots. A flooring's intended application will determine which of the tests listed below are performed, and the parameters used within that test.

All testing is performed to the most current version of the test standard available at the time of testing, and standards may change after information is published. All tests are performed in a laboratory setting and may not be indicative of actual performance once installed due to the normal and expected variations that will occur with every installation. These variations can include, but are not limited to, site conditions, installation methods, end use, or maintenance. The intent of the test data provided is to allow for direct comparison between similar flooring under the same conditions, as defined within the relevant standard.

- **14 CFR §25.793** — Factors of Sliding Friction (DCOF)
  - Sleds using rubber and leather are pulled horizontally along the flooring by the testing machine, and the dynamic coefficient of friction (DCOF) is measured. The test involves both wet and dry conditions. The DCOF average must be a minimum 0.45 for each condition.
- **14 CFR §25.853(a), Appendix F, Part I(a)(ii)** — 12-Second Vertical Flammability
  - The flooring is exposed to an open flame for 12 seconds. To pass, the material must self-extinguish within 15 seconds. Additionally, the burn length on the sample must not exceed 8 in. (20.3 cm), and no drippings from the sample may burn longer than 5 seconds after falling.
- **49 CFR §571.302** — Flammability of Interior Materials (FMVSS 302)
  - The flooring is exposed to an open flame for 15 seconds. The burn rate is measured and must not exceed 4 in. (10.2 cm) per minute. Material that self-extinguishes before it has burned for 60 seconds and has a burn length less than 2 in. (5.1 cm) is considered to meet the burn rate requirement.
- **AC39** — Acceptance Criteria for Walking Decks
  - This document sets the requirements for walking decks to be evaluated by the certifying body. For additional information, please refer to Lonseal's certification on our website.
  - Additional standards are referenced by AC39, but not detailed in this list. Please contact Lonseal's Technical Department if you have questions about these tests.
- **ASTM D2047** — Dry SCOF
  - A James Machine is used to measure the dry static coefficient of friction (SCOF) of the flooring surface. Higher results indicate better traction. Floor finish is applied to the samples, unless noted otherwise. Under this standard, flooring is considered slip resistant with a value ≥0.50.
  - Any contaminant, soiling, or surfactant on the surface of the floor will greatly impact its COF, more so if liquids are involved. Regular maintenance is necessary to minimize any potential issues or hazards, and any spills must be cleaned up immediately.
- **ASTM E648** — Critical Radiant Flux
  - The flooring is exposed to both indirect heat and open flame, with the results determining the critical radiant flux. To meet or exceed Class 1 per the NFPA, the result must be ≥0.45 watts/cm$^2$.
- **ASTM F137** — Flexibility
  - The flooring is bent face out, 180° over a mandrel and must not crack, break, or show permanent damage. To meet Type I per ASTM F1303, the mandrel diameter must be 1/4 in. (6.4 mm).
- **ASTM F510** — Abrasion Resistance
  - A Taber abraser, using a grit-feeding device, drops grit onto the flooring as it rotates beneath the leather clad abrading wheels. The flooring is rotated to the specified number of cycles and the weight loss is measured.
- **ASTM F925** — Chemical Resistance
  - Specified reagents are placed on the flooring, left for 60 minutes, and then removed. The flooring is reviewed 5 minutes and 24 hours later to determine if it was affected. The reagents specified in ASTM F1303 must show no more than a slight change. Additional or different reagents may also be tested for select products.
  - This is not a stain test. It is only meant to determine the effect specific reagents will have on the surface of the flooring. If a proposed installation will be exposed to potential staining, Lonseal recommends obtaining a sample of the chosen flooring, exposing it to the reagent, and then performing maintenance to determine if the product will be suitable.
- **ASTM F970** — Static Load Recovery
  - An indentation machine is used to indent a 1.125 in. (28.6 mm) diameter flat surface into the flooring under a specified load for 24 hours. Residual indentation is measured 24 hours after load removal. To qualify for commercial use per ASTM F1303, the load must be 175 lbs. (175 psi) and residual indentation must not exceed 0.005 in. (0.127 mm).
- **ASTM F970** — Static Load Recovery (continued)
  - This standard is not written, nor is it recommended, for use in determining a floor's maximum load (psi).
  - For dynamic rolling loads, ASTM F2753 will provide a better indication of a floor's performance in use. Additionally, Lonseal recommends reviewing the information regarding static loads at the Resilient Floor Covering Institute's website (*www.rfci.com*).
- **ASTM F1303** — Specification for Sheet Vinyl Flooring with Backing
  - This standard sets the minimum levels of flooring performance to qualify for the noted type, grade, and backing classes. Additional ASTM standards are referenced by F1303 and detailed in this list.
- **ASTM F1514** — Stability to Heat
  - A spectrophotometer or colorimeter is used to determine the amount of color change to the flooring after it is exposed to 158 °F (70 °C) for 7 days. ASTM F1303 requires a result of ΔE≤8.
- **ASTM F1515** — Stability to Light
  - A spectrophotometer or colorimeter is used to determine the amount of color change to the flooring after it is exposed to a xenon light source for 400 hours. ASTM F1303 requires a result of ΔE≤8 at 300 hours.
- **ASTM F1914** — Short-Term Indentation
  - To meet Type I per ASTM F1303, an indentor with a 0.75 in. (19.05 mm) diameter spherical foot is used to indent the flooring under a load of 50 lbs. for 5 minutes. Residual indentation is measured 60 minutes after load removal. The indentation cannot exceed 0.012 in. (0.31 mm).
- **ASTM F2753** — Dynamic Rolling Load
  - A test assembly with the specified wheel and load is rolled over the flooring for the specified cycles. The flooring is adhered using the specified adhesive, and installed with a butt seam (no heat or chemical weld) in the middle of the test area. The flooring, seam, and adhesive are reviewed for any changes or damage. The review is performed immediately after load removal.
  - The test may use a higher than normal psi for a single wheel, as typical furniture or equipment is sharing a load across multiple wheels.
- **ISO 26987** — Chemical Resistance
  - Specified reagents are placed on the flooring, left for 2 hours, and then removed. The flooring is reviewed 5 minutes later to determine if it was affected.
  - This is not a stain test. It is only meant to determine the effect specific reagents will have on the surface of the flooring. If a proposed installation will be exposed to potential staining, Lonseal recommends obtaining a sample of the chosen flooring, exposing it to the reagent, and then performing maintenance to determine if the product will be suitable.
- **ISO 24343-1** — Residual Indentation
  - An indentation machine is used to indent an 11.3 mm (0.44 in.) diameter flat surface into the flooring under a 500 N (112.4 lbf) load for 150 minutes. Residual indentation is measured 150 minutes after load removal.
- **ISO 24343-2** — Short-Term Indentation
  - An indentation machine is used to indent a 19.05 mm (0.75 in.) diameter hemispherical foot into the flooring under a 22.7 kg (50 lbs.) load for 300 seconds. Residual indentation is measured 150 minutes after load removal.
- **ISO 23999** — Dimensional Stability and Curling
  - The flooring is measured in machine and cross directions (MD and CD), and for any initial curling, before being exposed to 80 °C (176 °F) for 6 hours. The flooring is re-measured 24 hours after removal to determine the amount of change.
- **MIL-DTL-15562G** — High Voltage Insulating Flooring
  - This standard sets the minimum levels of flooring performance to qualify for the noted Type I, Type II, or Type III classifications.
  - Additional standards are referenced by MIL-DTL-15562G, but most are not detailed in this list. Please contact Lonseal's Technical Department if you have questions about the tests not listed here.



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