COIN DOT FLOORING

Material specifications • aerospace document review • reported test data

AIRCRAFT FLAMMABILITY

14 CFR §25.853(a), Appendix F

12-second vertical flammability. Full criteria on page 2.

REFERENCE METHOD - PRODUCT RESULT NOT SUPPLIED

AIRCRAFT SLIDING FRICTION

14 CFR §25.793

Wet / dry dynamic friction (DCOF). Full criteria on page 2.

REFERENCE METHOD - PRODUCT RESULT NOT SUPPLIED

THICKNESS	ROLL LENGTH	ROLL WIDTH	WEIGHT
0.100 in.	**60 ft.**	**6 ft. / 8 ft.**	**0.8 lbs./sq. ft.**
2.5 mm	18.3 m	1.8 m / 2.4 m	4.0 kg/m²

Nominal sizes / weights. CNxxx & CN8xxx: 6 ft. / 8 ft. wide. CTBxxx: 8 ft. wide.

Aerotex colour options

- Beige
- Silver
- Dark Blue Small
- Navy Blue Large
- Sapphire
- Medium Grey
- Medium Grey Large
- Graphite
- Medium Grey Small
- Black Large
- Black
- Dark Grey Small
- Graphite Large

Colour names: aerotex.ca/products/coin-dot-flooring. Listed website options are not mapped to the CN/CN8 or CTB source test groups. Confirm construction, roll width and test documentation for the selected option.

Material properties

CNxxx / CN8xxx source group

- ASTM F1303: Type I, Grade 1, Class B, Commercial Use.
- Low VOC and protective formulations (protects the flooring from degradation).
- FloorScore® Indoor Air Quality (IAQ) Certified; conforms to CA Specification 01350.

CN/CN8 + CTB source groups

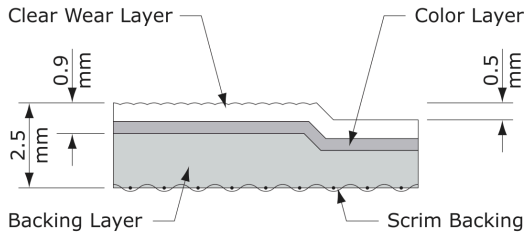
Meets FMVSS 302
(49 CFR §571.302).

This is an automotive flammability result; aircraft test results are not supplied.

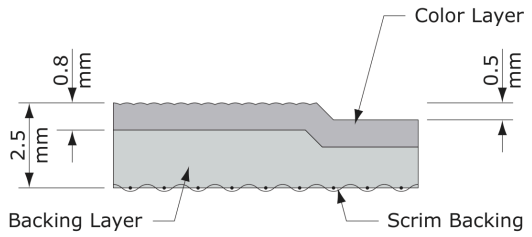
Construction

All measurements are nominal; not to scale.

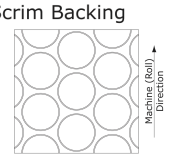
CNxxx / CN8xxx



CTBxxx



Backing exception: one source option uses fiberglass rather than scrim backing. Some source finishes change colour tone with the viewing angle. Confirm the backing and finish for the selected Aerotex option. Refer to the Unfinished Flooring Maintenance Guide for applicable finishes.



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Reported test results

Source groups retained separately; aerospace reference methods are highlighted below.

TEST / PROPERTY	CNxxx / CN8xxx	CTBxxx
ASTM D2047 | Dry SCOF; no floor finish applied	**Neolite: 0.69**	**Neolite: 0.82**
ASTM F510 | Abrasion Resistance, 1,000 cycles	**0.10 g (0.29%) loss**	**0.26 g (0.85%) loss**
ASTM E648 | Critical Radiant Flux	**Class 1 (≥0.45 watts/cm²)**	-
ASTM F137 | Flexibility	**Passes**	-
ASTM F970 | Static Load Recovery	**Passes**	-
ASTM F1514 | Stability to Heat	**Passes**	-
ASTM F1515 | Stability to Light	**Passes**	-
ASTM F1914 | Short-Term Indentation	**Passes**	-

CN/CN8 tests above are reported under ASTM F1303, except D2047, E648 and F510 (additional tests).

D2047: James Machine for CN/CN8. "-" = not reported in the supplied product results.

ASTM F925 | Chemical Resistance

CNxxx / CN8xxx - Passes

5 min.: No Change / 24 hr.: No Change

- White Vinegar (5% Acetic Acid)
- Rubbing Alcohol (70% Isopropyl Alcohol Base)
- White Mineral Oil (Medicinal Grade)
- Sodium Hydroxide Solution (5% NaOH)
- Hydrochloric Acid Solution (15% HCl)
- Sulfuric Acid Solution (5% H2SO4)
- Household Ammonia Solution (5% NH4OH)
- Household Bleach (5.25% NaOCl)
- Disinfectant-Phenol Type (5% Active Phenol)
- Kerosene • Olive Oil • Unleaded Gasoline

ASTM F925 | Chemical Resistance

CTBxxx

5 min. & 24 hr.: No Change

Ammonia (5% NH4OH) • Animal Fat (hot, liquid)
Bleach (5.25% NaOCl) • Blood • Diesel Fuel
Gasoline • Red Wine • Urea

5 min. & 24 hr.: Moderate Change

Motor Oil • Mustard

Each reagent tested individually.

Test methods / aerospace references first

Aircraft methods below are reference information; no product pass result is supplied.

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 the applicable manufacturer's certification. Additional standards are referenced by AC39, but not detailed in this list. Please contact Aerotex for technical information 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.

Printed documents are uncontrolled. Contact Aerotex for current product technical information.

Test methods / continued

General test descriptions; use the product results on page 2 for the applicable source group.

The following list contains brief summaries, plus additional information as needed, for the majority of the test standards noted in the product specifications. Please refer to the actual standard for complete information. While the manufacturer 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.

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/cm² .

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, we recommend 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). 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, we recommend 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, we recommend 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 Aerotex for information if you have questions about the tests not listed here.