

MARMOLEUM® CLICK TECHNICAL DATA

1. PRODUCT NAME / MANUFACTURER

1.1 Product:

Marmoleum® Click floor covering

1.2 Manufacturer:

Forbo Flooring Systems
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1.3 Product Description:

Construction: Marmoleum® Click has a 2.0 mm thick top layer of Marmoleum®, which is made from natural ingredients including linseed oil, rosin binders, wood flour, limestone and dry pigments which are mixed and then calendared onto a natural jute backing. The Marmoleum® is adhered to a 6.8 mm thick HDF panel with a 1.0 mm thick cork backing.

Topshield2™ is a high performance finish. Its double UV cured double layer technology delivers extraordinary performance and clear and vibrant colors that remain over time. Topshield2™ creates a 'ready to use' Marmoleum® that requires no initial maintenance or polymer application. The surface can be repaired or refreshed in cases of accidents or after years of intensive use.

1.4 Physical Characteristics: (dimensions are approximate)

Panel-----11.81" x 35.43" (300 mm x 900 mm)
Square-----11.81" x 11.81" (300 mm x 300 mm)
Thickness-----3/8" (9.8 mm)
Base Material -----HDF Panel Board
Packaging -----Panels: 7 per carton - 20.3 ft.² (1.89 M²)
Squares: 7 per carton - 6.7 ft.² (0.63 M²)

2. PRODUCT PERFORMANCE AND TECHNICAL DATA

2.1 Reference Specification:

Meets or exceeds all the technical requirements as set forth in EN 14085, Specification for Floor Panels and ASTM F 2034, Standard Specification for Linoleum Sheet Flooring. Type I (Surface Material)

2.2 Environmental:

Compliant with CHPS 01350 requirements for VOC emissions and indoor air quality.

Contributes to the following LEED® credits:

Materials & Resources

Credit 4: Recycled Content (78% Pre-Consumer)

Credit 6: Rapidly Renewable Materials (8.3%)

Indoor Environmental Quality

Credit 4.3: Low-Emitting Materials (Listed on LEM Table)

2.3 Static Load Limit:

300 pounds per square inch when tested in accordance with ASTM F 970-00, Standard Test Method for Static Load Limit.

2.4 Slip Resistance:

Meets or exceeds the industry recommendation of >0.5 for flat surfaces when tested in accordance with ASTM D 2047, Standard Test Method for Static Coefficient of Friction.

2.5 Castor Resistance:

Suitable for office chairs with castors when tested in accordance with EN 425, Castor Chair Test.

2.6 Impact Sound Reduction:

IIC 57 when tested in accordance with ASTM E 492, Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor/Ceiling Assemblies using the Tapping Machine.

2.7 Resistance to Bacteria:

Provides a self-sanitizing quality in the form of a bactericidal effect. Independent testing has shown that a sterile zone around the material inhibits the growth of organisms such as staphylococcus aureas and Clostridium difficile.

2.8 Anti-Static Properties:

Naturally anti-static. This property makes cleaning easier because dirt and dust does not cling to the surface as it may with other materials.

2.9 Fire Testing:

Class 1 when tested in accordance with ASTM E 648/NFPA 253, Standard Test Method for Critical Radiant Flux.

Meets 450 or less when tested in accordance with ASTM E 662/ NFPA 258, Standard Test Method for Smoke Density.

Class C when tested in accordance to ASTM E 84/NFPA 255, Standard Test Method for Surface Burning Characteristics.

2.10 Cigarette Resistance:

Resists cigarette burns. Burning cigarettes will leave only a brown mark, which can be rubbed out using steel wool or a scouring pad.

2.11 Chemical Resistance: (Exposure Time: One Hour)*

Diluted Acids – Sulfuric, Nitric, Hydrochloric,
Acetic, Lactic, Citric-----No Change
Isopropyl Alcohol (70%) -----No Change
Sodium Hydroxide (5%) -----Softening
Ammonia (5%), Acetone----- Possible Softening/Staining
Soda / Soap Solution (Slightly Alkaline) -----No Change
Gasoline, Kerosene, White Spirit, Paraffin-----No Change
Benzene, Toluene, Methyl Alcohol, Ethyl
Acetate -----No Change
Methyl Ethyl Ketone, Ether, Phenol (5%) -----No Change
Mineral Oil, Olive Oil, Vegetable Oil,
Animal Fat -----No Change
Blood, Urine, Excrement ----- No Change
Formaldehyde, Hydrogen Peroxide 3% -----No Change
Hot Chili Paste, Iodine, Betadine, Hair Dye-----No Change
Shoe Polish, Lipstick ----- Staining
Silver Nitrate ----- Staining/Possible Softening
Bitumen, Salt Water-----No Change
Methylene Blue -----Staining
Gel-Based Hand Sanitizer, Bleach -----No Change

Tested in accordance with ASTM F 925, Standard Test Method for Resistance to Chemicals of Resilient Flooring.

*Marmoleum® Click is NOT resistant to prolonged exposure to high alkalis.

3. INSTALLATION

3.1 Site Conditions:

The installation should not begin until the work of all other trades has been completed, especially overhead trades. Areas to receive flooring should be clean, fully enclosed and weathertight with the permanent HVAC must be fully operational, controlled and set at a minimum of 68° F (20° C) for a minimum of seven days prior to, during, and seven days after the installation. The ambient relative humidity should be approximately 50-60%. The flooring material should be conditioned in the same manner for 2 – 3 days (6 days in the winter) prior to the installation. Areas to receive flooring shall be adequately lighted to allow for proper inspection of the substrate, installation and seaming of the flooring, and for final inspection.

3.2 Substrates:

Floors shall be sound, relatively smooth, flat, permanently dry, clean and free of any old adhesive residue. Wood floors should be double construction with a minimum total thickness of 1 inch. Wood floors must be rigid, free from movement and have at least 18" of well-ventilated air space below. Forbo floor coverings should not be installed over wooden subfloors built on sleepers over on or below grade concrete floors without first making sure that adequate precautions have been taken to ensure the structural integrity of the system, and to prevent moisture migration from the concrete slab. Concrete substrates should be prepared in accordance with the latest version of ASTM F 710, Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring. Concrete shall have a minimum compressive strength of 3,000 psi. Patch and repair minor cracks and other imperfections using only the highest quality patching and leveling compounds in strict accordance to the manufacturer's recommendations for their use and application. The substrate must be flat to within 3/32" in 6' (2 mm in 2 M). Floor covering should not be installed over expansion joints. Suitable expansion joint covers should be used. It is essential that moisture tests be conducted on all concrete floors regardless of the age or grade level. Conduct calcium chloride tests in accordance with the latest version of ASTM F 1869, Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride. Measure the internal relative humidity of the concrete slab in accordance with the latest version of ASTM F 2170, Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes. One test of each type should be conducted for every 1,000 square feet of flooring (minimum of 3). The tests should be conducted around the perimeter of the room, at columns, and anywhere moisture may be evident. Concrete moisture vapor emissions must not exceed 3.0 lbs. per 1,000 square feet in 24 hours. Concrete internal relative humidity must not exceed 75%. A diagram of the area showing the location and results of each test should be submitted to the Architect, General Contractor or End User. If the test results exceed these limitations, the installation must not proceed until the problem has been corrected.

Note: Moisture tests indicate conditions at the time of the test only. The absence of an acceptable vapor retarder under the slab, changes in the environment, or other

circumstances beyond Forbo's control, may lead to adverse changes in the moisture condition of the concrete. Forbo's warranty shall not be extended to cover damage or failures caused by moisture conditions in excess of specified limits that occur after the time of initial testing or installation.

Installations over a concrete substrate or any substrate with under floor heating must have a minimum 6 mil vapor barrier. The edges of the vapor barrier should extend up the walls at least 2" and have a minimum overlap of 8" at the seams.

Marmoleum® Click is not recommended for use in wet areas for light commercial applications. If a floor drain or sump pump is present, it is there for a reason. DO NOT INSTALL Marmoleum® Click on that level.

IMPORTANT: Please note that a gap of 3/8" (10 mm) is required for expansion on all sides between the floor construction and the wall. This distance must also be provided at all columns, heating pipes, steel door frames, etc.

3.3 Installation Guidelines:

Refer to Forbo Flooring's Marmoleum® Click Installation and Care Guide for complete installation requirements.

4. AVAILABILITY AND COST

Available through authorized Forbo Flooring suppliers throughout North America. Contact Forbo Flooring or an authorized supplier for cost information.

5. WARRANTY

Limited 5-year commercial warranty. For complete details, contact Forbo Flooring.

6. CARE AND CLEANING

After installation is completed, allow a minimum of 5 days for the adhesive to properly bond and cure before conducting wet cleaning procedures. See Forbo Flooring's Floor Care Guide for additional information.

7. SUPPORT SERVICES

Submittal samples for verification and approval are available upon request from Forbo Flooring. Samples shall be submitted in compliance with the requirements of the Contract Documents. Please fax all sample requests to +570 450 0229 or visit our website at www.forboflooringna.com. Accepted and approved samples shall constitute the standard materials that represent materials installed in the project.

For current installation and floor care guidelines, guide specifications, and other technical information, visit our website at www.forboflooringna.com.