FLOTEX® SHEET TECHNICAL DATA

1. PRODUCT NAME & MANUFACTURER

1.1 Product:

Flotex® flocked textile sheet floor covering

1.2 Manufacturer:

Forbo Flooring Systems **Humboldt Industrial Park** Hazleton, PA 18202 www.forboflooringna.com

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1.3 Product Description:

Construction: Flotex® flocked textile sheet floor covering has 100% nylon type wear layer with an intermediate fiberglass layer and a recycled closed cell vinyl cushioned backing. Sanitized® Treatment: This highly effective anti-microbial treatment offers constant protection against bacteria, including MRSA, E-coli, C. difficile, CRE and the development of dust mites. It is compounded into the backing of Flotex® continually refreshing the anti-microbial performance without degradation through cleaning or vacuuming.

1.4 Physical Characteristics: (dimensions are approximate)

Gauge ----- 0.17" (4.3 mm) Width----- 79" (2 meters) Length ----- 98.4' (30 meters) Roll Size----- 71.76 yards2 (60 meters2)

Flotex® Sheet has a pattern repeat. Please refer to the 'Pattern Repeat for Flotex® Sheet Collections' Technical Bulletin for additional information.

2. PRODUCT PERFORMANCE & TECHNICAL DATA

2.1 Environmental:

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

Contributes to the following LEED® v4 credits:

Materials & Resources

Credit 4, Option 1: See Forbo's LEED v4 sheet for additional information.

Credit 4, Option 2: Recycled Content (20% Pre-Consumer)

Prerequisite 2: 100% Recyclable Packaging

Indoor Environmental Quality

Credit 2: Low-Emitting Materials (www.chps.net)

Credit 2: Low-Emitting Materials (Adhesives comply with SCAQMD Rule #1168)

2.2 Wear Layer Density:

Approximately 80,000,000 fibers per square yard.

2.3 Castor Resistance:

Suitable for office chairs with castors when tested in accordance with EN 985, Castor Chair Test.

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 Durability/Appearance Retention:

Wear Layer Composition is 6.6 nylon type.

Class 4 (heavy duty) when tested in accordance to EN 1307, Classification of Pile Carpets (Wear Classification).

Achieves over 60,000 cycles when tested in accordance to the Wira Abrasion Test.

Achieves 95% recovery in 24 hours; 100% in one week when tested in accordance to ISO 3416-86. Determination of Thickness Loss after Prolonged Heavy Static Loading.

2.6 Colorfastness:

No color change when tested in accordance with AATCC 107, Colorfastness to Water.

No color change when tested in accordance with AATCC 16, Colorfastness to Light (Option 3).

Slight color change when tested in accordance with AATCC 165, Colorfastness to Crocking Wet & Dry.

2.7 Acoustical Properties:

 $\Delta Lw = 20$ db when tested in accordance with ISO 140-8, Measurement of sound insulation in buildings and of building elements.

0.10 when tested in accordance with ISO 354, Measurement of Sound Absorption in a Reverberation Room.

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.

2.8 Bounce Rebound

98.5% average rebound when tested in accordance to ASTM F 2117, Standard Test Method for Vertical Rebound Characteristics of Sports Surface.

2.9 Resistance to Bacteria

Flotex® is treated with Sanitized®, an anti-microbial treatment. Independent testing has shown that a sterile zone around the material inhibits the growth of organisms such as staphylococcus aureas (Staph Infection), Clostridium Difficile (C. difficile) and Carbapenem-Resistant Enterobacteriaceae (CRE).

2.10 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.

Passes when tested in accordance to ASTM D 2859, Standard Test Method for Ignition characteristics of Finished Textile Floor Coverings (Pill Test).

FSR - 245; SDC - 105 when tested in accordance to CAN/ULC S102.2, Standard Test Method for Flame Spread Rating and Smoke Development.

2.11 Electrostatic Propensity:

2.1 Kv when tested in accordance with AATCC 134, Electrostatic Propensity of Carpets.

2.12 Electrical Properties:

0.1 Kv when tested in accordance to ISO 6356, Assessment of Static Electrical Propensity.

>109 ohms when tested in accordance to ISO 10965, Determination of Electrical Resistance.



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 flooring material (including adhesive) should be conditioned in the same manner for a minimum of 48 hours 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.

Note: Store Flotex® sheet flooring standing on end. Storing the rolls laying down will result in pile crush. Forbo will not honor claims relating to pile crush if the rolls were stored laying down.

3.2 Substrates:

Floors shall be sound, smooth, flat, permanently dry, clean, and free of all foreign materials including, but not limited to, dust, paint, grease, oils, solvents, curing and hardening compounds, sealers, asphalt and 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. 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 8.0 lbs. per 1,000 square feet in 24 hours when using Forbo FRS 885 adhesive. Concrete internal relative humidity must not exceed 85% when using Forbo FRS 885 adhesive. 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.

3.3 Adhesive:

Use Forbo FRS 885 adhesive. Use a 1/16" x 1/16" x 1/16" square notch trowel. Spread Rate: Approximately 125 square feet/gallon.

3.4 Flash Coving (OPTIONAL):

Flash cove up walls to the desired height. Use Forbo FRS 885 adhesive

3.5 Installation Guidelines:

Refer to Forbo Flooring's Installation Guide for complete installation guidelines.

4. AVAILABILITY & COST

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

5. WARRANTY

Limited 10-year warranty. For complete details, contact Forbo Flooring.

6. CARE & 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.

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