



DINOFLEX Group Limited Partnership

TECHNICAL SPECIFICATIONS

THE EVOLUTION OF RUBBER TILE

1. PRODUCT NAME

- The Evolution of Rubber Tile - Commercial Flooring
 - Foundation Color Group
 - Imagination Color Group

2. MANUFACTURER

DINOFLEX Group Limited Partnership
 P.O. Box 3309
 5590 – 46th Ave. S.E.
 Salmon Arm, B.C. Canada V1E 4S1
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 Fax: 250-832-7788
 E-mail: dinoflex@dinoflex.com
www.dinoflex.com

3. PRODUCT DESCRIPTION

Composition & Materials

DINOFLEX Evolution Flooring is a non-laminated tile product with homogeneous color, composed of 100% post-consumer recycled SBR (styrene butadiene rubber) combined with EPDM (ethylene propylene diene monomer) rubber granules, bound with a polyurethane binder.

All tiles are produced in block form (not cut from rolled material) sliced and precision cut using computerized numerically controlled (CNC) water-based equipment. Thickness tolerance is a maximum of +/- 0.5mm. (Interlocking tiles are fully reversible.)

DINOFLEX Recycled Rubber Tiles are FloorScore^(R) certified under the criteria developed by the Resilient Floor Covering Institute (RFCI) and certified by Scientific Certification Systems (SCS), Inc. Registration # SCS-FS-02144.

Special Considerations:

- Use caution when choosing high color products for sport applications.
- High color product not recommended for use where ice skates are used.
- In areas with heavy rolling loads, a minimum of 6mm glue down product is recommended.
- Interlocking tiles recommended for use in dry, temperature controlled environments only.
- In areas where pallet jacks are used, premature wear may occur. Glue down installation only.
- Not suitable for use in food preparation zones.
- Diversey Carefree sealer recommended for use in difficult to clean areas.

Product Information:

<p><u>Square cut (glue down installation)</u> 38" x 38" = 10.02 ft² 96.5 cm x 96.5 cm = 0.93 m²</p> <p>THICKNESS</p> <table border="1"> <tr><td>4 mm</td><td>5/32"</td></tr> <tr><td>6 mm</td><td>1/4"</td></tr> <tr><td>8 mm</td><td>5/16"</td></tr> <tr><td>10 mm</td><td>3/8"</td></tr> <tr><td>12 mm</td><td>1/2 "</td></tr> </table>	4 mm	5/32"	6 mm	1/4"	8 mm	5/16"	10 mm	3/8"	12 mm	1/2 "	<p><u>Interlock (no glue required)</u> 37" x 37" = 9.5 ft² 94 cm x 94 cm = 0.88 m²</p> <p>THICKNESS</p> <table border="1"> <tr><td>8 mm</td><td>5/16"</td></tr> <tr><td>10 mm</td><td>3/8"</td></tr> <tr><td>12 mm</td><td>1/2 "</td></tr> </table>	8 mm	5/16"	10 mm	3/8"	12 mm	1/2 "
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NOTE:

1. All measurements are subject to nominal variation.
2. Thickness tolerance of ± 0.5 mm.
3. Custom sizes available. Contact Dinoflex Sales Representative for details and pricing.

Colors:

See brochure or website (www.dinoflex.com) for **THE EVOLUTION** OF RUBBER TILE color collection.

- Foundation Color Group – 29 standard colors.
- Imagination Color Group – 40 standard colors.

Custom colors:

- Combine Black SBR rubber with up to 5 different EPDM color granules chosen from DINO FLEX color pallet.
- Full block multiples required for custom color orders. Block multiples based on tile thickness chosen:

○ 4mm - Less than 60% total color = 38 tiles	Greater than 60% color = 37 tiles
○ 6mm - Less than 60% total color = 23 tiles	Greater than 60% color = 22 tiles
○ 8mm – Less than 60% total color = 18 tiles	Greater than 60% color = 17 tiles
○ 10mm – Less than 60% total color = 15 tiles	Greater than 60% color = 14 tiles
○ 12mm – Less than 60% total color = 12 tiles	Great than 60% color = 11 tiles

4. DESIGN & BASIC USE

DINO FLEX Evolution Commercial Flooring is designed for use in a multitude of retail and commercial applications. Excellent impact and sound absorbing qualities make it ideal for corporate offices, libraries, and retail establishments. The extreme durability of this product results in flooring that will outlast the alternatives, making it the product of choice for high use commercial facilities.

Please contact DINO FLEX for information on custom designed logos.

Limitations

The following chemicals may cause damage to the surface and should be avoided: kerosene, solvents, grease, auto oil, vegetable oil/fat, and highly concentrated acids and/or bases.

This product is not suitable for service environments that have heavy vehicular traffic, rolling or sliding machinery, or similar uses unless fully adhered.

5. INSTALLATION METHODS

- a) **Square style** - fully adhered, use DINO FLEX recommended adhesives. See adhesive manufacturers' recommendation for moisture tolerance.
- b) **Interlock style** – loose lay, no adhesive required. For indoor use, no moisture present, no rolling loads.

Refer to **Installation & Maintenance Guidelines**
for information relating to sub-surfaces listed:

- 1) Concrete sub-surface
- 2) Wooden sub-surface

NOTE: DINO FLEX Evolution Commercial Flooring should not be installed over carpet.

6. TECHNICAL DATA

Test Standards by the 'American Society for Testing and Materials' (ASTM) and others:

- **AATCC 134-06** Electrostatic Propensity of Flooring Material
- **ASTM C501** Standard Test Method for Relative Resistance to Wear of Rubber Tile by the Taber Abraser
- **ASTM D2047** Standard Test Method for Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine
- **ASTM D2240** Standard Test Method for Rubber Property-Durometer Hardness
- **ASTM D3676** Standard Specification for Density Rubber Cellular Cushion Used for Carpet or Rug Underlay
- **ASTM D395B** Standard Test Methods for Rubber Property-Compression Set
- **ASTM D412** Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers - Tension
- **ASTM D5116** Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/Products. (V.O.C.)
- **ASTM E648-97** Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source
- **ASTM F137-03** Standard Test Method for Flexibility of Resilient Flooring Materials with Cylindrical Mandrel Apparatus
- **ASTM F150** Standard Test Method for Electrical Resistance of Conductive and Static Dissipative Resilient Flooring
- **ASTM F1914-98** Standard Test Method for Short-Term Indentation and Residual Indentation of Resilient Floor Covering
- **ASTM F925-97** Standard Test Method for Resistance to Chemicals of Resilient Flooring
- **ASTM F970-87** Standard Test Method for Static Load Limit
- **ASTM G21** Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi
- **Phillips Roll Chair** Test Method for Numeric Rating of Surface Structure
- **Federal Standard 101B/NFPA 99 12-4.1.3.8** –Static Decay Test Method 4046
- **California Specification 01350 (CHPS Compliant for VOC Emissions)** - -Emission tests are performed following California Dept. of Health Services Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, CA/DHS/EHLRB/R-174, 07/15/04
(http://www.cal-iaq.org/VOC/Section01350_7_15_2004_FINAL_PLUS_ADDENDUM-2004-01.pdf)

Physical / Chemical Properties**A) - EVOLUTION RUBBER TILE: Up to 50% Color (E43, E44, E45, E46, E58, E62, E63)**

TEST PROCEDURE	DESCRIPTION	ACHIEVED VALUES (Subject to nominal variation)
AATCC 134-06	Electrostatic Propensity	POS 1.6 KV
ASTM C501	Taber Abrasion (H-22)	0.8% wt. Loss
ASTM D2047	Static Coefficient of Friction (James Machine method)	Dry 1.04, Wet 1.05
ASTM D2240	Hardness Shore A Durometer	64 to 65 Indentation hardness
ASTM D3676	Density Foam Test Summary	66 lbs/cu. ft.
ASTM D395B	Compression Set Under Force	96.3% recovered
ASTM D412	Tensile Strength	290.2 lbs/sq. in.
ASTM D5116	Material Emissions – VOC	Pass
ASTM E648-97 (New York Test Procedure)	Critical Radiant Flux	Class II
ASTM F150 (NFPA 99)	Electrical Resistance – Burroughs	
	- Surface to Surface	1.5×10^{10} ohms average
	- Surface to Ground	4.6×10^{10} ohms average
ASTM F1914-98	Short Term Indentation	.025 inch (6.0%) Loss
ASTM F1914-98	Residual Indentation	.007 inch (1.7%) Loss
ASTM F970-87	Static Load	.000 inch (0.0%) residual compression
ASTM F925-97	Chemical Resistance	
	• 5% acetic acid	No change
	• 70% isopropyl alcohol	No change
	• Mineral oil	No change
	• 5% sodium hydroxide	No change
	• 5% hydrochloric acid	No change
	• 5% ammonia	No change
	• Bleach	No change
	• 5% phenol	No change
	• Gasoline	No change
	• Kerosene	Slight
	• Sulphuric acid	No change
	• Olive Oil	No change
ASTM G21	Mold Growth on Surface	No Mildew after 14 days
Other Tests:		
CA 01350	Phillips Roll Chair Test	Structure – no change
	VOC Emissions – Section 01350	Pass

B) - EVOLUTION RUBBER TILE: Over 50% Color (all colors other than listed in (A))

TEST PROCEDURE	DESCRIPTION	ACHIEVED VALUES (Subject to nominal variation)
ASTM C501	Taber Abrasion (H-22)	4% wt. Loss
ASTM D2047	Static Coefficient of Friction (James Machine method)	Dry .85, Wet 1.01
ASTM D2240	Hardness Shore A Durometer	59 to 62 Indentation hardness
ASTM D3676	Density Foam Test Summary	78.3 lbs/cu. ft.
ASTM D395B	Compression Set Under Force	95% recovered
ASTM D412	Tensile Strength	186 to 292 lbs/sq. in.
ASTM D5116	Material Emissions – VOC	Pass
ASTM E492	Impact Sound Transmission	4mm = IIC 57 / 8mm = IIC 59
ASTM E648-97 (New York Test Procedure)	Critical Radiant Flux	Class I
ASTM F137-03	Flexibility	6mm Mandrel PASSES
ASTM F150 (NFPA 99)	Electrical Resistance – Burroughs	
	- Surface to Surface	1.9×10^{11} ohms average
	- Surface to Ground	3.9×10^{11} ohms average
ASTM F970-87	Static Load	.042 inch (10.6%) residual compression

ASTM F925-97

Chemical Resistance

• 5% acetic acid	No change
• 70% isopropyl alcohol	No change
• Mineral oil	No change
• 5% sodium hydroxide	No change
• 5% hydrochloric acid	No change
• 5% ammonia	No change
• Bleach	No change
• 5% phenol	No change
• Gasoline	No change
• Kerosene	No change
• Sulphuric acid	No change
• Olive Oil	No change
Mold Growth on Surface	No Mildew after 28 days

ASTM G21

Other Tests:

CA 01350

VOC Emissions – Section 01350 Pass

Copies of test reports and additional product information are available upon request.

7. INSTALLATION & MAINTENANCE PROCEDURES

Use a qualified or certified installer with experience installing similar recycled rubber flooring products. Refer to DINO FLEX Group LP – **EVOLUTION** – RUBBER TILE Installation & Maintenance Guidelines.

- Toll Free Tel: 877-713-1899
- Direct Line: 250-832-7780
- Fax: 250-832-7788
- www.dinoflex.com

8. AVAILABILITY & COST

Availability

Please, contact the dealer, distributor, or DINO FLEX Group LP for information on availability.

Cost

Pricing information may be obtained from dealer, distributor, or DINO FLEX Group LP

9. WARRANTY

The standard warranty period is 10 years from date of shipment. Please, see DINO FLEX's limited warranty for particulars of coverage.

10. TECHNICAL SERVICES

Contact DINO FLEX for more information, where our trained customer service personnel offer technical support and design assistance.

11. FILING SYSTEMS

- **EVOLUTION** – RUBBER TILE Architect Binder (Division 9)
- www.dinoflex.com