



I wish to have a blue electric guitar

Deonna, 12
brain tumor

PROUD PARTNER OF

Make-A-Wish®

Also for
use under
Ceramic &
Porcelain
Tile

Made of **High-Density
SYNTHETIC RUBBER**

For use under **Luxury Vinyl Tile/
Plank (including with attached back),
Laminate, Engineered Wood, Solid
Hardwood, Ceramic, and Porcelain Tile**

*Guaranteed to retain its thickness
and never crush*

STRENGTH™

Acoustical Crack Isolation Membrane

Xtreme™ Protection



Noise Guard

Reduces impact and airborne noise in-room and between floors. Reduces up to 10 decibels of in-room noise and an overall improvement between floors of 25%.



Block-Out® Moisture Guard with Vapor Layer Protection

Prevents spills from getting into subfloor and allows moisture vapor to escape from beneath.



Mold & Mildew Guard

Fresh Dimension® antimicrobial works to inhibit the growth of mold, mildew, and odor-causing bacteria.

Xtreme™ Performance



Comfort

Makes hard-surface flooring more enjoyable.



Support

The class-leading extreme density not only resists compression but will perform for the life of the floor.



Easy Installation

Lays flat and helps mask minor subfloor irregularities; can be used above and below grade.



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Leggett & Platt will donate \$0.01 to Make-A-Wish for every square foot (\$0.09/sq. yd.) of Make-A-Wish branded carpet cushion and underlayment sold (January 1st through December 31st, 2026) with a minimum donation of \$100,000.

STRENGTH™

Acoustical Crack Isolation Membrane

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Make-A-Wish®

SPECIFICATIONS

Model #:	BM0099	Moisture Barrier:	Block-Out® Moisture Guard
Composition:	Made of High-Density Synthetic Rubber	Permeance*:	2.329
Density:	66 lbs/ft ³ or 40 oz/yd ²	Water Vapor Emission:	0.511 lbs/1,000 ft ² /24 hrs
Shore A Hardness:	70	Castor Durability Test:	Passes 25,000 cycles**
IFD @ 25%/65%:	677.2 lbs/5,000+ lbs	Dimensions:	36" x 33'
Thickness:	0.051" (1.3 mm)	Ft ² /Roll:	100
Color:	Tan	Yd ² /Roll:	11.11
R-Value:	0.02	Roll Weight:	28 lbs

ACOUSTICAL PROPERTIES

Impact Insulation Class (IIC):	73***
HIIC:	88
ΔIIC:	22
Sound Transmission Class (STC):	64***

PROTECTION

Antimicrobial:	Yes
Warranty:	Life of the Floor

PERFORMANCE PROPERTIES (tested under ceramic and porcelain)

Standard	Test	Subfloor	Installation***	Tile	Cycles	Description of Requirement	Result
ANSI A118.12	System Crack Resistance	Concrete	-	-	-	>0.125 (1/8") for High Performance	Pass
1 ASTM C627-18	Robinson Test	Concrete	Thinset	Ceramic	1-12	Heavy Commercial, Light Commercial, Residential	Pass
2 ASTM C627-18	Robinson Test		Multipurpose Adhesive	Ceramic	1-6	Light Commercial, Residential	Pass
3 ASTM C627-18	Robinson Test		Spray-Lock Adhesive	Ceramic	1-6	Light Commercial, Residential	Pass
4 ASTM C627-18	Robinson Test		Pressure-sensitive Adhesive	Ceramic	1-3	Residential	Pass
5 ASTM C627-18	Robinson Test	15/32" Plywood Over 23/32" Tongue and Groove Plywood Over 16" On Center joist	Thinset	Porcelain	1-6	Light Commercial, Residential	Pass
6 ASTM C627-18	Robinson Test		Multipurpose Adhesive	Porcelain	1-12	Heavy Commercial, Light Commercial, Residential	Pass
7 ASTM C627-18	Robinson Test	Concrete	Slip Sheet (floated)	Ceramic	1-3	Residential	Pass
8 ASTM C627-18	Robinson Test (X3)****	Concrete	Slip Sheet (floated)	Porcelain	1-6	Light Commercial, Residential	Pass

***Installation describes the adhesive type used to attach Strength™ to the subfloor.

****Three different porcelain tiles passed Light Commercial, Residential when tested on Strength™ as a slip sheet installation.

Robinson Test (ASTM C627-18)
System Crack Resistance Test (ANSI A118.12)

LIFE-OF-THE-FLOOR UNDER WHICH IT IS INSTALLED WARRANTY

Please visit LPFlooringProducts.com for detailed warranty information.

* Conduct moisture tests in accordance with flooring manufacturer installation guidelines and requirements

** Passes Castor Durability Test for 25,000 cycles when tested under minimum of 3 mm double-glued luxury vinyl plank and minimum 3.2 mm floating-click

*** When tested with floor-ceiling assembly and LVT flooring

Shore A Hardness: ASTM D2240

IFD: ASTM D3574

Permeance: ASTM E96

IIC: ASTM E492-09 / ASTM E989-06

Δ IIC: ASTM E2179-03

STC: ASTM E90 / ASTM E413-10



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Leggett & Platt® Flooring Products

STRENGTH™ Acoustical Crack Isolation Membrane

Engineered for use under a wide variety of flooring products, including ceramic and porcelain tile.

PRODUCT NAME

Make-A-Wish Strength™ Acoustical Crack Isolation Membrane

MANUFACTURER

Leggett & Platt Flooring Products
720 Whitley Rd
Keller, TX 76248
800-475-0010 telephone
817-626-6699 fax

PRODUCT DESCRIPTION

Strength™ is an extremely dense synthetic rubber underlayment that is thermo-reinforced and features a non-woven point-bonded polyester layer on the top and bottom. This is a non-porous product.

Uses

Strength™ is engineered for use under approved thinset for ceramic and porcelain tile installations to help reduce sound between floors and, in testing, was found to help mitigate the transmission of horizontal cracks. When used under tile, it is intended as a complete room underlayment and therefore **not intended as a limited area patch**. Strength™ can be used under today's popular ceramic and porcelain flooring tile styles, which are available in many dimensions for both square and plank designs. Intended for indoor use only. Can be used as a slip sheet (floated) on concrete subfloors that meet TCNA Guidelines.

Advantages

Pliable rubber composition allows movement to reduce stress transmission from concrete slab below to tile installed over top.

Fast and easy installation (no wait time like poured products).

Rated for High Performance in crack resistance (ANSI A118.12) and helps protect against horizontal, in-plane slab substrate cracks up to 1/8"

Can be secured to substrate with different methods.

Remains dimensionally stable for long-term performance and reliability.

When installed as a slipsheet under ceramic/porcelain tile, simplifies removal at the end of its' service life with minimal demolition dust

Helps reduce noise between floors and retains acoustic properties over time due to retaining its' thickness.

Suitable Substrates

Concrete slabs
Concrete mortar beds
Self-leveling compounds
Lightweight gypsum concrete
Cement backer-board
Suitable wood subfloor

Packaging

One roll of BM0099 is 0.051" (1.3 mm) thick by 36" wide by 33.33' long totaling 100 square feet.

Shelf Life

Product in original packaging shall remain first quality for up to one year if stored within 32 and 110 degrees Fahrenheit.

Product Limitations

- Reference the TCNA Handbook for your specific installation requirements and limitations.
- **Consult your selected manufacturer of thinset and adhesive to ensure suitability with Strength™ prior to beginning the installation. Selecting the right thinset for use in between two non-porous layers is important to ensure a successful tile installation.** Thinset should be at a minimum ANSI 118.11 specification level of performance.
- Do not install over designed substrate expansion joints or where vertical movement is present.
- **Always perform a moisture test on the slab prior to installation.** When hydrostatic pressure is detected in the slab, proper moisture mitigation steps must be performed prior to installing Strength™.
- Do not install over any substrate that does not provide a smooth, solid foundation. **Always reference the TCNA Handbook for your specific installation requirements and limitations.**
- It is the responsibility of the installer to verify the deflection of the floor structure to ensure adequate support exists for live and dead loads prior to installing a crack isolation membrane.

Availability

Contact your Leggett & Platt Flooring Products Representative or call us at 800-475-0010.

Warranty

To request a copy, please contact Leggett & Platt Flooring Products.

Maintenance

Strength™ is maintenance-free and will perform as designed when properly installed.

Technical Services

Additional information can be found by visiting us at LPFlooringProducts.com/Strength or by calling us at 800-475-0010.

Appendix: Installation procedures used for testing Strength™ to the Robinson Test. Consult the TCNA manual for your particular floor configuration for more information related to structural requirements.

Concrete Subfloor

1. Strength™ installed on a slab using premium modified thinset applied with a 1/4" x 1/4" square notched trowel. The thinset mix ratio was 20.9:100 by weight. 8" x 8" ceramic tiles (back buttered with a skim coat) were installed using the same trowel and thinset. Sanded grout was applied using the same mix ratio by weight with a joint gap of 1/4". Total grouted installation was cured for 28 days.
2. Strength™ installed on a slab using premium multipurpose adhesive applied with a 3/32" x 3/32" x 3/32" flat V-notched trowel. 8" x 8" ceramic tiles (back buttered with a skim coat) were installed using premium modified thinset and a 1/4" x 1/4" square notched trowel. Thinset mix ratio was 20.9:100 by weight. Sanded grout was applied using the same mix ratio by weight with a joint gap of 1/4". Total grouted installation was cured for 28 days.
3. Strength™ installed on a slab using premium aerosol adhesive. 8" x 8" ceramic tiles (back buttered with a skim coat) were installed using premium modified thinset and a 1/4" x 1/4" square notched trowel. Thinset mix ratio was 20.9:100 by weight. Sanded grout was applied using the same mix ratio by weight with a joint gap of 1/4". Total grouted installation was cured for 35 days.
4. Strength™ installed on a slab using pressure-sensitive adhesive applied with a 1/16" x 1/32" x 5/64" U-notched trowel. 8" x 8" ceramic tiles (back buttered with a skim coat) were installed using premium modified thinset and a 1/4" x 1/4" square notched trowel. Thinset ratio mix was 20.9:100 by weight. Sanded grout was applied using the same mix ratio by weight with a joint gap of 1/4". Total grouted installation was cured for 37 days.

Wooden Subfloor

5. Strength™ installed on 15/32" plywood underlayment over 23/32" tongue & groove exterior plywood grade over 16" on center joist using premium modified mortar applied with a 1/8" x 1/8" square notched trowel. The thinset mix ratio was 20.9:100 by weight. 18" x 18" porcelain tiles (back buttered with a skim coat) were installed using a 1/2" x 1/2" square notched trowel and the same thinset. Sanded grout was applied using the same mix ratio by weight with a joint gap of 3/16". Total grouted installation was cured for 31 days.
6. Strength™ installed on 15/32" plywood underlayment over 23/32" tongue & groove exterior plywood grade over 16" on center joist using premium multipurpose adhesive applied with a 1/16" x 1/16" square notched trowel. 18" x 18" porcelain tiles (back buttered with a skim coat) were installed using premium modified thinset and a 1/2" x 1/2" square notched trowel. Thinset mix ratio was 20.9:100 by weight. Sanded grout was applied using the same mix ratio by weight with a joint gap of 3/16". Total grouted installation was cured for 30 days.

Concrete Subfloor

7. Strength™ loose laid over concrete as a slip sheet on a slab (no adhesive). 18" x 18" ceramic tiles (back buttered with a skim coat) were installed using a 1/2" x 1/2" square-notched trowel. The premium modified thinset ratio was 33.9:100 by weight. Sanded grout was applied using 19.8:100 mix ratio by weight with a joint gap of 3/16". Total grouted installation was cured for 32 days. A barrier was added on four sides to prevent rotational movement of the test specimen.
8. Strength™ loose laid over concrete as a slip sheet on a slab (no adhesive). 24" x 24" rectified porcelain tiles (back buttered with a skim coat) were installed using a 1/2" x 1/2" square-notched trowel. The premium modified thinset ratio was 33.9:100 by weight. Sanded grout was applied using 19.8:100 mix ratio by weight with a joint gap of 1/8". Total grouted installation was cured for 28 days. A barrier was added on four sides to prevent rotational movement of the test specimen.

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STRENGTH™ Acoustical Crack Isolation Membrane

Recommended Installation Instructions – Multiple Methods

Surface Preparation:

Concrete must be installed in compliance with industry standards as well as dry (28 days minimum) prior to installing Strength™. The surface must be smooth with no voids or other irregularities. Ensure there are no sealers, paint, oil/grease or any other contamination on the slab that would possibly hinder a successful bond if it will not be installed as a slip sheet. Use a modified Portland cement underlayment to provide a smooth finish if needed. *Concrete should be tested for both moisture vapor transmission and hydrostatic pressure using a calcium chloride test.*

For wood subfloors, it is the responsibility of the installer to verify the deflection of the floor structure and that subfloor does not exceed L/360 of the span under combined live or dead loads. Refer to wooden subfloor industry guidelines for more specific information.

For both wood and concrete subfloors, reference the TCNA Handbook for specific installation requirements and limitations.

Installing Strength™ over thinset:

- Subfloor must be clean, dry, flat, and structurally sound. Always follow the thinset manufacturer's guidelines.
- Apply modified thinset using the thinset manufacturer's recommended trowel to ensure evenness of the application. If none is recommended, a 1/8" x 1/8" square notched trowel may be used.
- Roll out the Strength™. Seams should be butted tight to ensure no gaping. Packing-style tape can be used to hold seams tight as needed.
- Ensure proper adhesion of the underlayment to the substrate – no air pockets. Roll with the Strength™ roll core at a 45-degree angle to ensure proper adhesion.
- Refer to the most current edition of the TCNA (Tile Council of North America) handbook for ceramic tile installation for instructions for applying thinset.

Installing Strength™ using multipurpose adhesive:

- Subfloor must be clean, dry, flat, and structurally sound. Always follow the adhesive manufacturer's guidelines.
- Apply adhesive using the multipurpose adhesive manufacturer's recommended trowel to ensure evenness of the application. If none is recommended, a 3/32" x 3/32" x 3/32" flat V-notched trowel may be used.

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- Roll out the Strength™, leaving a minimum of 1/8" expansion along the walls. Seams should be butted tight to ensure no gaping. Packing-style tape can be used to hold seams tight as needed.
- Ensure proper adhesion of the underlayment to the substrate – no air pockets. Roll with a maximum 50 lb. roller at a 45-degree angle to ensure proper adhesion. The Strength™ roll core can also serve the same function.

Installing Strength™ using Spray-Lock adhesive:

- Subfloor must be clean, dry, flat, and structurally sound.
- Refer to www.spraylock.com for installation instructions using Spray-Lock 6500.
- Roll out the Strength™, leaving a minimum of 1/8" expansion along the walls. Seams should be butted tight to ensure no gaping. Packing-style tape can be used to hold seams tight as needed.
- Ensure proper adhesion of the underlayment to the substrate – no air pockets. Roll with a maximum 50 lb. roller at a 45-degree angle to ensure proper adhesion. The Strength™ roll core can also serve the same function.

Installing Strength™ using pressure-sensitive adhesive:

- Subfloor must be clean, dry, flat, and structurally sound. Always follow the adhesive manufacturer's guidelines.
- Apply adhesive using the pressure-sensitive adhesive manufacturer's recommended trowel to ensure evenness of the application. If none is recommended, a 1/16" x 1/32" x 5/64" U-notched trowel may be used.
- After the adhesive sets up, roll out the Strength™ and leave a minimum of 1/8" expansion along the walls. Seams should be butted tight to ensure no gaping. Packing-style tape can be used to hold seams tight as needed.
- Ensure proper adhesion of the underlayment to the substrate – no air pockets. Roll with a maximum 50 lb. roller at a 45-degree angle to ensure proper adhesion. The Strength™ roll core can also serve the same function.

Installing Strength™ as a slip sheet (floated):

- Concrete subfloor must be clean, dry, flat, and structurally sound.
- Roll out Strength™. Seams should be butted tight to ensure no gaping. Packing style tape can be used to hold seams tight.

Important Note:

When installing under ceramic or porcelain over a wooden subfloor, it is imperative to confirm adequate support per TCNA requirements to prevent stress on tiled flooring due to subfloor flex.