

1. Product Name

R1 .125 Studded Acoustic Underlayment

2. Manufacturer

Formulated Materials, LLC
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Tech Services : (844) 405-3676
www.formulatedmaterials.com
www.formulated.info

3. Product Description

Treadstone® R1 .125 Studded Acoustic Underlayment is a diamond-studded mat composed of a blend of UV-stabilized recycled polyethylene and laminated to a polypropylene fabric. The rigid studded technology of R1 delivers acoustic performance in multifamily, hospitality, and mixed-use projects. With its reinforced construction and compatibility with gypsum and lightweight concrete systems, R1™ improves both IIC and STC values while providing durability for everyday installations.

Key Features

- Sound Attenuation: Treadstone® R1 enhances STC and IIC ratings in standard applications
- Easy Installation: Fabric side down with taped seams and no fasteners for quick application
- Super low profile of 1/8" (3mm) with system profiles as thin as 7/8" (22.23mm)
- Meets sound attenuation requirements with 3/4" underlayment depth – lowering the overall weight of the assembly and reducing dry time.
- Because the system is embedded, noise is reduced, even when floor coverings change
- UL listed in over 116 designs

Where to Use

- Multifamily Residential Projects
 - Ideal for apartment complexes, condominiums, and other multi-unit housing where sound control between floors is critical.
- Light Commercial Buildings
 - Suitable for mixed-use developments, hotels, senior living facilities, or dormitories requiring quiet environments.
- Over Wood Substrates
 - Specifically designed for installation over plywood or OSB subfloors, providing optimal performance in wood-framed buildings.
- Under Treadstone® Gypsum Underlayments
 - Engineered to work seamlessly under Treadstone® and similar gypsum toppings, creating a complete sound-rated floor system.



- Over Corrugated Metal Decking
 - Can be used with appropriate leveling layers in podium-style construction over metal decking structures.
- Floor-Ceiling Assemblies Targeting Code-Compliance
 - Utilized in UL-listed and ICC-evaluated floor assemblies to achieve STC and IIC ratings that meet or exceed building code minimums.
- New Construction & Renovation Projects
 - Versatile for both new builds and retrofit sound-control upgrades in existing structures.

Product Composition

- UV Stabilized Recycled Polyethylene
- Laminated to a Polypropylene Fabric

Product Limitations

Treadstone® R1 is only one component of the floor ceiling assembly and overall noise reduction strategy. While using Treadstone® R1 will improve the overall acoustics performance of the assembly, the exact amount or minimum performance cannot be guaranteed. Formulated Materials recommends contacting an acoustical consultant for recommendations regarding the acoustical performance of any and all projects.

- Indoor Use Only.
- Minimum underlayment pour depth of 3/4"
- Do not use as a replacement for a proper moisture barrier.
- Not intended to be used as a flooring wear surface.
- Correct Installation Required: Improper installation may compromise acoustic and fire performance ratings.
- Treadstone® Underlayment thickness/compressive strength recommendations.
 - Residential/Multifamily Construction: .75" (19mm) at 2,000 psi minimum.
 - Light Commercial: .75" (19mm) at 3,000 psi minimum.
- Limitations not to be construed as all inclusive

Packaging

- 44,375" x 100' Rolls (370 ft²) / 8 Rolls per Pallet / 448 rolls (165,760 ft²) full truckload

4. Technical Data

Technical Chart

Property	Results
Color	Black with white fabric
Thickness	1/8" (3 mm)
Underlayment Depth	Min 0.75" (19.05 mm)
Roll Width	42.75" (108.585 cm)
Roll Length	98.1' (29.9 m)
Coverage Area Per Roll	345 ft ² (32.1 m ²)
Weight Per Roll	40.3 lbs. (18.28 kg)

Mechanical Resistance

Pressure	Deflection
315 psf (1,537 kg/m ²)	0.0071" (0.18mm)
982 psf (4,794 kg/m ²)	0.0141" (0.36mm)
2,994 psf (14,618 kg/m ²)	0.0283" (0.72mm)
5,306 psf (25,906 kg/m ²)	0.0425" (1.08mm)
7,952 psf (38,825 kg/m ²)	0.0567" (1.44mm)
10,019 psf (48,917 kg/m ²)	0.0709" (1.80mm)

Environmental Considerations

Formulated Materials is dedicated to environmental responsibility in product development and manufacturing processes.

5. Instructions

General Surface Prep

Ensure the surface is clean, dry and structurally sound. Repair any cracks, spalling, or unstable areas. Remove dust, dirt, oil, grease, and contaminants. Use mechanical methods (grinding, sanding) if needed. Verify moisture levels meet product requirements. Address excessive moisture if necessary. Apply primer as specified and allow it to dry thoroughly. Maintain recommended temperature and humidity. Avoid extreme conditions. Perform a final check to clear debris and confirm the surface meets all preparation guidelines before application.

Installation of Product

Always read the Safety Data Sheet (SDS) for full precautionary instructions before use.

Tools Required

- Measuring Tape.
- Knife - to cut matting to shape.
- Formulated Materials Sound Mat Seam Tape.
- Formulated Materials Perimeter Isolation Strip.

Site Conditions

- The building must be fully enclosed, weather-tight, and protected from outside elements.
- Ambient temperature must be maintained at a minimum of 50°F (10°C) for a continuous period of at least 5 to 7 days before, during, and after installation of both the Treadstone® R1 acoustic underlayment and any associated Treadstone® gypsum underlayment.

Subfloor Preparation

- Substrate must be clean, dry, and structurally sound.
- Remove all dust, dirt, grease, oil, and other contaminants that may interfere with adhesion or acoustic underlayment laydown.
- Subfloors must be flat and free from irregularities; repair any cracks or surface damage before installation.

Installation

- Unroll Treadstone® R1 directly over the prepared subfloor with the fabric side facing downward.
- Lay the acoustic underlayment in a loose-laid configuration, ensuring that seams are tightly butted together with no visible gaps or overlaps.

Seam Treatment

- Use Treadstone Sound Mat Seam Tape to secure the seams.

Perimeter Isolation

- All room perimeters, intersecting walls, fixed objects (e.g., columns, cabinets), and mechanical/electrical penetrations must be isolated to prevent sound flanking.
- Install Treadstone® Perimeter Isolation Strip vertically against all adjoining surfaces.
- Ensure the isolation material extends a minimum of 1/4 inch above the final pour height of the underlayment.

Final Checks

- Confirm that all seams are sealed, perimeter isolation is in place, and the surface is ready to receive the gypsum underlayment.
- Do not walk excessively on the acoustic underlayment after seam taping to avoid shifting before pour.

For further guidance or recommendations, please contact Formulated Materials.

Storage & Handling

- Store in dry conditions.
- Store away from direct sunlight..

Shelf Life

- 12 months from date of manufacture.

Health Precautions

- Follow all local safety regulations, including OSHA Section V: Chapter 4 for Fall Protection in Construction.
- Follow the manufacturer’s Safety Data Sheets (SDS) and safety protocols for PPE.

Conformance to Building Codes

Installation must comply with all applicable local, state, and federal codes, regulations, and industry standards.

6. Availability

Item	Description	Size	Sq. Ft / Roll
10210	R1 .125 Studded Acoustic Mat	42.75" x 98.1'	345

44.375" x 100' roll (370 ft²) / 8 rolls per Pallet / 448 rolls (165,760 ft²) full truckload

7. Product Warranty

For details and complete warranty information, visit www.formulatedmaterials.com

8. Product Maintenance

Properly installed products do not require ongoing maintenance.

9. Technical Services Information

For Technical Services, contact Formulated Materials at (844) 405-3676

10. Filing System

Additional product information is available from Formulated Materials upon request.

UL DESIGNS

G230 G516 G524 G561 G577 G578 G579 G580 G581 G582 G587
G592 H502 J917 J919 J920 J924 J927 J931 J957 J958 J991 J994
L006 L201 L202 L206 L209 L210 L211 L212 L501 L502

L503 L504 L505 L506 L507 L508 L509 L510 L511 L512 L513 L514
L515 L516 L517 L518 L519 L520 L522 L523 L524 L525 L526 L527
L528 L529 L530 L532 L533 L534 L535 L536 L537

L538 L539 L540 L541 L542 L543 L545 L546 L549 L550 L551 L552
L556 L557 L558 L560 L562 L563 L565 L570 L573 L574 L576 L577
L579 L581 L583 L585 L587 L588 L589 L590 L592

L593 M500 M502 M503 M504 M506 M508 M511 M512 M513 M515
M517 M519 M530 M531 M535 M536



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