

### 1. Product Name

Elite Duo .375 Stud Acoustic Underlayment

### 2. Manufacturer

Formulated Materials, LLC  
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### 3. Product Description

Treadstone® Elite Duo is the highest-performance acoustic underlayment engineered to deliver superior sound control and added moisture protection. Featuring an impervious, studded mat, Elite Duo provides a complete sound-attenuating and fire-resistant system using only 3/4" of gypsum—reducing material usage while maintaining performance. Manufactured with 100% recycled content, it supports sustainable building practices without compromising quality.

Treadstone Elite Duo is a monolithic, rolled plastic core mat composed of polyethylene and polypropylene in a high-compression-resistant, cusped HDPE design. Elite Duo offers compression and deflection resistance never before seen in an acoustical sound mat product.

The specialized mat is designed to improve both Impact Insulation Class (IIC) and Sound Transmission Class (STC) ratings in floor-ceiling assemblies, in compliance with International Building Code (IBC) standards. By reducing both impact and airborne noise, Elite Duo enhances occupant comfort in multi-story residential and commercial structures.

Elite Duo is installed beneath UL-classified cementitious underlayments, including gypsum, lightweight concrete, and structural concrete. It is compatible with a wide range of floor coverings such as luxury vinyl tile (LVT), hardwood, ceramic tile, and carpet.

Treadstone® offers a complete line of gypsum underlayments, self-leveling compounds, and acoustic underlayments engineered to elevate performance across the construction industry.

#### Key Features

- Maximum Acoustic Performance – Optimized STC and IIC enhancement.
- Impervious, studded mat for sound control and moisture protection
- Reduces both impact and airborne sound transmission
- Complies with IBC standards for IIC and STC ratings
- Fire-resistant system using only 3/4" gypsum
- Supports UL-classified cementitious underlayments (gypsum, lightweight, structural concrete)
- Compatible with multiple floor coverings (LVT, wood, tile, carpet)
- Made with 98% recycled content
- Contributes to sustainable building practices
- Reduces material usage without sacrificing performance



#### Where to Use

Treadstone® Elite Duo is suitable for a range of applications, particularly where sound insulation and structural performance are critical.

Typical applications include:

- Where luxury surface flooring systems require absolute minimal deflection
- Underlayment Support: Designed to work with UL-classified cementitious underlayment (gypsum, lightweight concrete, structural concrete) with pour depths ranging from 3/4" to 2"+.
- Floor-Ceiling Systems: For use in residential, commercial, and mixed-use buildings to reduce sound transmission.

#### Perimeter Isolation

To ensure the optimal performance of Treadstone® Elite Duo in sound isolation, it is critical to provide perimeter isolation. This involves leaving a 1/4" gap between the acoustic matting and the walls or other vertical surfaces, ensuring the matting does not bridge to the structure. Additionally, perimeter isolation foam should be used to prevent sound flanking through the building structure. All utility penetrations should be properly sealed to maintain the system's sound isolation integrity.

#### Suitable Substrates

- Properly prepared wood, concrete, steel, or gypsum.

#### Product Composition

- Polyethylene and polypropylene

#### Product Limitations

Treadstone Elite Duo is only one component of the floor-ceiling assembly and overall noise-reduction strategy. While using Treadstone Elite Duo will improve the overall acoustics performance of the assembly, the exact amount or minimum performance cannot be guaranteed. Formulated Materials recommends consulting an acoustical consultant for recommendations on the acoustical performance of any project.

- Treadstone® Underlayment thickness/compressive strength recommendations:
  - Residential/Multifamily Construction: 0.75" (19 mm) at a minimum of 2,000 psi.
  - Light Commercial: 0.75" (19 mm) at a minimum of 3,000 psi.
- Indoor use only.

- Minimum underlayment pour depth of 3/4"
- Do not use as a replacement for proper moisture mitigation.
- Correct Installation Required: Improper installation may compromise acoustic and fire performance ratings.
- Limitations are not to be construed as all-inclusive

### Packaging

- 45" x 90' / 6 rolls per pallet

## 4. Technical Data

### Technical Chart

Property	Results
Appearance	Studded mat with fabric one side
Color	Black
Thickness	0.375" (3/8")
Width	45"
Length	90'
Coverage Area	333 sq ft Roll
Roll Weight	55 lbs. including core
Pallet Quantity	6 Rolls / 1,998 sf

### Mechanical Resistance

Pressure	Deflection
674 psf (3,290 kg/m <sup>2</sup> )	0.0098" (0.25mm)
5,000 psf (24,412 kg/m <sup>2</sup> )	0.0197" (0.50mm)
21,000 psf (102,531 kg/m <sup>2</sup> )	0.0394" (1.00mm)

### Sound Performance Data

See Treadstone® Sound Test Data TDS for most current test information

### Environmental Considerations

Formulated Materials is dedicated to environmental responsibility in product development and manufacturing processes. When used per applicable guidelines, this product may contribute to LEED® certification.

## 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 Tape

### 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® Elite Duo 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® Elite Duo 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

- Seal all seams using Treadstone® Sound Mat Seam Tape.
- The seam tape must be centered over each joint, overlapping both adjacent pieces of Treadstone® Elite Duo by a minimum of 3/4 inch (19 mm) to ensure a continuous acoustic barrier.

### 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.

For additional technical support, contact Formulated Materials or visit [www.formulatedmaterials.com](http://www.formulatedmaterials.com).

## 6. Availability

Item	Description	Size
10209	Treadstone® Elite Duo	45" x 90' / 333 sf Roll

4 rolls per pallet / 152 rolls (50,616 sf) per truckload

## 7. Product Warranty

For details and complete warranty information, visit [www.formulatedmaterials.com](http://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

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L528 L529 L530

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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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