



**SECTION 09 05 71 – ACOUSTIC UNDERLAYMENT**  
**SOUND SILENT 7 ACOUSTICAL UNDERLAYMENT**  
**POLYSOLS® TEXTILE SOLUTIONS**

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GUIDE SPECIFICATIONS:

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CAREFULLY REVIEW AND EDIT THIS SECTION TO MEET THE REQUIREMENTS OF THE PROJECT, LOCAL BUILDING CODE, AND AUTHORITIES HAVING JURISDICTION. COORDINATE THIS SECTION WITH OTHER SPECIFICATION SECTIONS AND DRAWINGS.

DELETE ALL "SPECIFIER NOTES" WHEN EDITING THIS SECTION.

**PART 1 - GENERAL**

1.1 CONDITIONS AND REQUIREMENTS

- A. The General Conditions, Supplementary Conditions, and Division 01 – General Requirements apply.

1.2 SECTION INCLUDES

- A. Sound Silent 7 Acoustical Underlayment

1.3 RELATED SECTIONS

- A. Section 06 16 23 – Subflooring.
- B. Section 09 30 00 – Tiling.
- C. Section 09 60 00 – Flooring.
- D. Section 09 63 40 – Stone Flooring.
- E. Section 09 64 23 – Wood Parquet Flooring.
- F. Section 09 64 23.13 – Acrylic-Impregnated Wood Parquet Flooring.

1.4 REFERENCES

- A. American National Standards Institute (ANSI):

1. ANSI 118.12: Specification for Crack Isolation Membranes for Thin-Set Ceramic Tile and Dimension Stone Installations.
2. ANSI 118.13: Specifications for Bonded Sound Reduction Membranes for Thin-Set Ceramic Tile Installation.
- B. American Society for Testing and Materials International (ASTM):
  1. ASTM E90: Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
  2. ASTM E492: Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine.

#### 1.5 SUBMITTALS

- A. Product Data:
  1. Submit manufacturer's printed product literature, specifications, and data sheets.

#### 1.6 QUALITY ASSURANCE

- A. Acoustic Underlayment manufacturer shall have a minimum of 10 years of experience.

#### 1.7 DELIVERY

- A. Packing and Shipping: 200 boards per pallet.

#### 1.8 WARRANTY

- A. Manufacturer's Warranty: Provide the manufacturer's standard limited warranty in effect at the date of purchase.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Specified Manufacturer: Polysols Inc. Textile Solutions. Spartanburg, SC. Telephone: 864-579-4484 ext. 104. Email: [colton.cabaniss@polysols.com](mailto:colton.cabaniss@polysols.com). Website: [www.polysols.com](http://www.polysols.com).

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 SPECIFIER NOTES: DELETE ONE OF THE FOLLOWING TWO PARAGRAPHS.  
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- B. Substitutions: Not Permitted.
- C. Requests for approved substitutions will be considered in accordance with provisions specified in Section 01 62 00 – Product Options.

#### 2.2 SOUND SILENT 7 DESCRIPTION

- A. Sound Silent 7 acoustical underlayment from Polysols® provides great sound absorption and doubles as a powerful decoupler to ensure adequate noise reduction in residential and commercial structures. SoundSilent 7 has a high mechanical load-bearing capacity of 73.1 pounds per square foot (360 Kilograms per square meter) and noise reduction of up to 17 decibels with ceramic tiles. The hardened polymer shape of Sound Silent 7 allows it to act as a de-stressor and permits a larger portion of the floor area to be covered in ceramic or natural stone. It is the perfect underlayment for new construction, remodeling, and multi-family development. Sound Silent 7 is ideal for installation beneath tile, stone, or parquet and can be installed on screed, concrete, or wooden subflooring.

#### 2.3 SOUND SILENT 7 DESIGN CRITERIA

- A. Design Criteria:
  1. Uses: New construction and remodeling.

2. Compressive Strength: Under working loads up to 73.1 pounds per square foot (360 Kilograms per square meter).
3. Sound Absorption: Up to 21 decibels.
4. Sound Absorption with Ceramic Tiles: 17 decibels.
5. Sound Insulation Class Rating Over 6 inches (150 millimeters) Concrete Slab:
  - a. ASTM E90 Sound Transmission Class:
    - 1) With Suspended Ceiling: 62.
    - 2) Without Suspending Ceiling: 56.
  - b. ASTM E492 Impact Insulation Class:
    - 1) With Suspended Ceiling: 67.
    - 2) Without Suspending Ceiling: 52.
  - c. ASTM E492 Delta Impact Insulation Class:
    - 1) Without Suspending Ceiling: 21.
6. Thermal Resistance (R-Value) Conforming to ASTM C518: 0.727 degrees Fahrenheit hour square foot per British thermal unit (0.13 square meter Kelvin per watt).
7. Tensile Strength: 1369 pounds per square inch (9.4 Newtons per square millimeter).
8. 7-Day Shear Strength Conforming to ANSI 118.12: 53 pounds per square inch (0.37 Newtons per square millimeter).
9. Robinson Floor Test Conforming to ANSI 118.13: 7 Cycles rated for light to moderate commercial usage.
10. Crack bridging.
11. Tension degrading.
12. Heat insulating.

#### 2.4 SOUND SILENT 7 MATERIALS

- A. Sound Silent 7 Acoustical Underlayment
  1. Board Material: Pre-consumer recycled polyester fiber panel.
  2. Dimensions:
    - a. Width: 23.75 inches (0.6 meters).
    - b. Length: 39.25 inches (1 meter).
    - c. Thick: 0.28 inches (7 millimeters).
    - d. Area: 6.5 square feet (0.6 square meters).
    - e. Area Weight: 0.8 pounds per square foot (3.9 Kilograms per square meter).
  3. Cover Per Pallet: 1300 square feet (121 square meters).
  4. Quantity Per Pallet: 200 boards.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine Project conditions and completed Work and verify that the area is ready for installation of pedestal supports.
- B. Immediately correct all deficiencies and conditions which would cause improper execution of Work specified in this Section and subsequent Work.
- C. Proceeding with Work specified in this Section shall be interpreted to mean that all conditions were determined to be acceptable prior to the start of Work.

#### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation. Ensure all surfaces are clear of dirt and debris.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. The system structure must be smooth and able to support a minimum dynamic load capacity of 20.88 pounds per square foot (102 Kilograms per square meter).
- D. Use leveling compound to level the structure and ensure the structure is level before installing panels to the subfloor.

### 3.3 INSTALLATION

- A. Install Polysols® Sound Silent 7 in accordance with the manufacturer's instructions and recommendations and the authorities having jurisdiction.
- B. Sound Silent 7 panels are to be cut with a sharp razor, carpet cutter, angle grinder with a diamond-coated friction disk, or a table saw.
- C. Sound Silent 7 panels should be placed over the subfloor in a floating style, staggering the panels to eliminate long seams.
- D. Leave sufficient space between the panels and any vertical structures such as walls or supports.
- E. Secure butt joints with self-adhesive tape.
- F. Follow the manufacturer's instructions regarding dry times for the adhesive used in bonding the flooring covering to the panels.
- G. Apply a waterproof sealant over Sound Silent 7 according to the manufacturer's instructions when using Sound Silent 7 in kitchens, laundry rooms, bathrooms, and basements.
- H. Use a highly polymer-modified joint sealer as a grout to strengthen the bond of tiles to Sound Silent 7 and provide additional dampening support.
  - I. Tiles must be at least 12 by 12 inches (305 by 305 millimeters).
- J. Ceramic or porcelain tiles, natural stone, ready-to-lay parquet, laminate, luxury vinyl plank, and luxury vinyl tile can be laid directly onto Sound Silent 7.

### 3.4 PROTECTION AND MAINTENANCE

- A. Protection, General: In addition to general requirements specified in Section [01 50 00 – Temporary Facilities and Controls,] [01 54 00 – Construction Aids,] [Section 01 56 00 – Temporary Barriers and Enclosures,] [Section 01 60 00 – Product Requirements,] and [Section 01 77 00 – Closeout Procedures,] comply also with the following requirements.
  - 1. Protect installed products until completion of the project.
  - 2. Touch-up, repair, or replace damage products prior to Substantial Completion.

**END OF SECTION**