1. GENERAL INFORMATION

Use Dal-Sound as an acoustical treatment under hard surface flooring including ceramic tile, dimension stone, epoxy terrazzo, hardwood floors, etc. to reduce airborne and impact sound transmission. In a thin-bed method, the sheet with bonding agent is typically 1/8" (3mm) or less. The sheet may also be incorporated into a full mortar bed installation without bonding to the substrate.

NOTES:

a) Install in strict compliance with these instructions, and comply with all applicable ANSI standards, TCNA recommendations, and building codes.

b) For any procedure not covered by these instructions, contact Dal-Tile Corporation.

<table>
<thead>
<tr>
<th>STANDARD:</th>
<th>ANSI A118.13</th>
<th>ANSI A118.10</th>
<th>ANSI A118.12</th>
<th>ASTM C627</th>
<th>ASTM E2179</th>
<th>ASTM E492</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Bonded Sound Reduction Membrane for Thin-Set Ceramic Tile Installation</td>
<td>Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone Installations</td>
<td>Crack Isolation Standard: “System Crack Resistance” (Jig Test)</td>
<td>Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems using the Robinson Type Floor Tester</td>
<td>Testing method for the laboratory measurement of the effectiveness of floor coverings in reducing impact noise from a standard tapping machine through concrete floors</td>
<td>Impact Insulation Class (IIC)</td>
</tr>
<tr>
<td>Rating:</td>
<td>Passed</td>
<td>Passed</td>
<td>High Performance (&gt; 1/8&quot;)</td>
<td>Extra Heavy</td>
<td>Δ12</td>
<td>62**</td>
</tr>
</tbody>
</table>

Note: Refer to Dal-Sound Product Description for additional information.

** Concrete substrate and sound rated ceiling.
2. MATERIALS
2.1 MEMBRANE: Dal-Sound is a thin 3/64" (1.25mm) bonded, load bearing sheet membrane for sound isolation.
   2.1.a COMPOSITION: Dal-Sound is a composite sheet made from an alloy of Chlorinated Polyethylene (CPE) with non-woven fabric laminated to both sides.
2.2 BOND COAT: Dal-Sound should be bonded with NobleBond EXT, Dal-Bond 21, or a modified thin-set mortar (including rapid curing types) which meet ANSI A118.4 and is recommended by the manufacturer for this application. If Dal-Sound is bonded to plywood with thin-set, the thin-set must meet ANSI A118.11. Bonding agent must conform to the appropriate ANSI standards, TCNA Handbook recommendations, and bonding agent manufacturer’s directions.
   NOTES:
   a) Job-site mortar mixes must conform to ANSI A108.5.
   b) Refer to bond coat manufacturer’s instructions for cure time.
2.3 ACOUSTICAL SEALANT: Use to isolate flooring surface from building elements at perimeters and penetrations.
2.4 TOOLS: Normal tile setting tools, scissors or utility knife, rubber hand roller, and linoleum roller (75 - 100 lbs. recommended).

3. PLANNING & LAYOUT
3.1 MEMBRANE: Install Dal-Sound over the entire area to be tiled. For areas wider than one sheet width, butt sheets of Dal-Sound together.
   NOTE: Waterproofing requires a 2" overlap of sheet membrane (refer to Section 6.2).
   3.1.a SHEET DIMENSION: 6' x 33 1/3' = 200 sq. ft. (1.8m x 10.2 = 18.6m2)
3.2 SHEET BOND COAT
   3.2.a NOBLEBOND EXT: Is a wet-set adhesive suitable for bonding Dal sheet membranes in interior, exterior, wet areas, and vertical and horizontal applications. Porosity and condition of the substrate can affect coverage, but NobleBond EXT will generally provide the following coverage: approximately 90-100 sq. ft./gallon.
   3.2.b DAL-BOND 21: Is a latex-based, pressure-sensitive adhesive for bonding Dal sheet membranes in interior, horizontal applications. It is not for use in wet areas. Coverage is approximately 150 sq. ft./gallon.
   NOTES:
   a) Environmental conditions and condition of the substrate can affect coverage.
   b) NobleBond and Dal-Bond adhesives allow for greater movement than cement-based mortars. They also allow tile to be installed immediately after sheet is embedded into the adhesive as they do not require further curing. Refer to Installation Instructions on container label.
   3.2.c MODIFIED THIN-SET: See manufacturer’s coverage rate.
      3.2.c.1 Cold Weather Procedure: Consult bond coat manufacturer for safe low-temperature limits and cure times.
      3.2.c.2 Hot Weather Procedure: Consult bond coat manufacturer for safe high-temperature limits and mixing procedures.
3.3 ACOUSTICAL SEALANT: A 29 oz. tube of Acoustical Sealant seals approximately 40 lin. ft. when a 3/8" bead is used, or approximately 89 lin. ft. when a 1/4" bead is used.
3.4 DAL-SEALANT 150 (Waterproofing Only): A 10.3 oz. tube of Dal-Sealant 150 seams approximately 40 linear ft.

4. PREPARATION
>>> RECOMMENDED: Test materials and method under job-site conditions to confirm suitability.
4.1 INSPECTION: Substrate must meet requirements set forth by the TCNA and ANSI A108 and A118 standards. Report in writing any deficiencies that might affect performance of the system.
   NOTES:
   a) Dal-Sound will not compensate for structural deficiencies in the substrate.
   b) Review all detail drawings (see Section 10 - FIGURES/DRAWINGS).
4.2 PROCEDURE: To incorporate Dal-Sound into a thin-bed installation, prepare substrate and select bond coat.
4.3 SUBSTRATES: Substrate condition for sheet is the same as tile (see TCNA guidelines). Slabs on, above, or below grade should be tested for moisture content and pH. Slabs must be flat. Floor preparation (i.e. leveling, patching) should be done prior to installation of sheet.
   4.3.a DEPRESSIONS: Floors with depressions may cause sheet to span over these depressions. Remedy by filling the depression prior to installation of sheet. Follow appropriate industry guidelines.
4.4 INSTALLER: Must be familiar with Dal-Tile’s current written instructions, TCNA Handbook recommendations, and ANSI A108 and A118 standards. Contractor must be experienced with installation procedures for Dal-Tile products or be instructed by a Dal-Tile representative prior to commencing work.

5. BONDING SHEET TO SUBSTRATE
5.1 INSTALLATION METHODS:
   5.1.a BONDED: Directly to substrate.
   5.1.b LOOSE-LAID: Under full mortar bed (see TCNA guidelines).
   NOTES:
   a) There must be sufficient weight to keep the membrane in place.
   b) Spot bonding may be necessary to keep the Dal-Sound from moving.
5.2 PREPARATION: Clean and prepare substrate as if thin setting tile without sheet.
5.3 BONDING AGENTS: Bond sheet with any of the following:
   5.3.a NOBLEBOND EXT: Refer to NobleBond EXT Installation Instructions.
   5.3.b DAL-BOND 21: Refer to Dal-Bond 21 Installation Instructions.
8. LIMITATIONS:

Dal-Sound is not designed for use as a wearing surface. Dal-Sound is not recommended for exterior applications. For applications not specifically detailed in the installation instructions, contact Dal-Tile Corporation. Wood subfloors must be clean, dry, and free of sealers, primers, and other substances that could affect bonding of the sheet to the subfloor. Dal-Sound will not correct structural deficiencies. Deflection of the subfloor must not exceed industry standards. Installation must follow TCNA recommendations and appropriate industry standards.

9. WARRANTY:

Dal-Sound brand CPE membrane is guaranteed for the life of the original installation by Dal-Tile Corporation against failure caused by rotting, cracking, and microorganism deterioration when properly installed in tile systems for which its use is recommended by Dal-Tile Corporation. This warranty is limited to the replacement of defective material and freight charges to destination only. There are no other expressed or implied warranties, and this warranty is in lieu of any other warranty, including, but not limited to, implied warranties of merchantability and fitness for purpose. Dal-Tile Corporation is not responsible for consequential damages. The remedy of the purchaser set forth herein is exclusive.
NOTE: DAL-SOUND MUST BE INSTALLED IN STRICT COMPLIANCE WITH THESE INSTRUCTIONS, APPLICABLE ANSI STANDARDS, TCNA RECOMMENDATIONS, AND BUILDING CODES.

These suggestions and data are based on information Dal-Tile Corporation believes to be reliable. Users should verify by tests that Dal-Sound, as well as these installation methods, are suitable with the products being used in their application. Since specific use, materials, and handling are not controlled by Dal-Tile Corporation, this warranty is limited to the replacement of defective Dal-Tile products. Dal-Tile disclaims any responsibility for (a) warranties of merchantability and fitness for purpose; (b) verbal recommendations of its representatives; and (c) consequential damages.

10. FIGURES/DRAWINGS

NOTE: Dal-Sound can be installed in a variety of construction configurations including:
A) Radiant Heating Systems.
B) Over Primed Gypsum Underlayment.
C) Under Hardwood Flooring.

Concrete Substrate with Sound Rated Ceiling

Concrete Substrate

Wood Subfloor

Concrete Substrate with Sound Rated Ceiling

Concrete Substrate

Wood Subfloor

SURFACE (ceramic, stone, terrazzo, marble, etc.)
SEALANT (acoustically rated)
TILE BONDING AGENT
DAL-SOUND (Sound Reduction Sheet)
MORTAR BED
SHEET BONDING AGENT
SUBSTRATE (Complying with industry standards)
CEILING (Sound Rated)
THIN-BED

SURFACE (ceramic, stone, terrazzo, marble, etc.)
SEALANT (acoustically rated)
TILE BONDING AGENT
DAL-SOUND (Sound Reduction Sheet)
SHEET BONDING AGENT
SUBSTRATE (Complying with industry standards)

SURFACE (ceramic, stone, terrazzo, marble, etc.)
TILE BONDING AGENT
DAL-SOUND (Sound Reduction Sheet)
SHEET BONDING AGENT
WOOD SUBFLOOR
TRUSS OR I-JOIST

Option: Compressed back-up below sealant (see TCA RF900 for details)