

Protecto  
**Whisper Mat**<sup>®</sup>  
for ceramic & stone



# Sound Control & Crack Suppression Membrane for Ceramic and Natural Stone Tile



Premium Building Products That Protect



Sound Control and Crack Suppression  
Membrane for Ceramic and Natural  
Stone Tile For:

Whisper Mat® CS is a peel & stick sheet membrane that reduces impact and airborne sound transmissions, and isolates “finished” flooring from subfloor cracks. Designed for use with ceramic and natural stone tile where sound absorption is required, specified or desired.

Constructed of a Cross Linked Poly-Olefin foam sheet combined with aggressive rubberized adhesive and a polyester mesh fabric, Whisper Mat CS also has the flexibility and strength to withstand structural movement and concrete shrinkage cracks up to 3/8" without transferring stress load to finished tile. Additionally, excellent moisture resistant properties make this the most comprehensive underlayment product for ceramic and natural stone available.



## PROPERTIES AND ADVANTAGES



- Sound Reduction: IIC: 71 STC: 72
- Moisture Resistant
- Anti-Fracture Resistant to 3/8"
- Thermal Insulation
- Light Commercial Load Rating
- Approved over Radiant Heated Subfloors
- Uniquely Thin System (110 mil)
- Economical

### Whisper Mat® CS Composite

Layers in order, top to bottom:

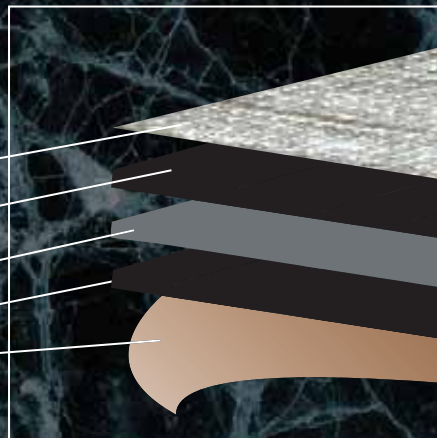
Reinforced Polyester Mesh Fabric

Aggressive Rubberized Adhesive

Dense, Cross-Linked Poly-Olefin foam

Aggressive Rubberized Adhesive

Release Paper





# New Construction, Remodeling, Residential & Commercial Construction

## Why Specify Protecto Wrap's Flooring Membranes?

Protecto Wrap Company has been manufacturing membranes since 1952 and has built a sound reputation for producing the highest quality products available. Our sheet membranes meet or exceed sound properties for almost any job specification. Protecto Wrap's strict quality control combined with committed research and development allows for production of the highest quality products available to the flooring and building industries.

**Basic Uses:** Whisper Mat CS is designed to be an underlayment for ceramic and stone tiles where transmitted or impact sound reduction is required. It may be applied to any structurally sound and clean surface including: concrete, plywood, gypsum underlayments, precast floor panels, OSB, Ceramic tile, terrazzo, natural stone, leveling and patching compounds, cement backer board, existing VAT, VCT and vinyl floors. WhisperMat is approved over radiant heated floors.

**Limitations:** Do not use any solvent-based sealants on or around Whisper Mat CS as they may deteriorate the product. Whisper Mat CS is not recommended for use on concrete floors when hydrostatic head pressure or excessive water vapor transmission exceeds 4lbs. (tested by "Calcium Chloride Test" method) or where constant water vapor transmission is present. Whisper Mat CS is not recommended for use where horizontal floor movement is greater than 3/8." Existing cracks larger than 3/16" should be prepared with proper backing material prior to installation of membrane. Whisper Mat CS is not recommended to cover joints or cracks larger than 3/8." For installation over plywood substrates, refer to TCNA Handbook Detail F147. For concrete expansion joints and Movement Joints refer to TCNA Detail EJ171. Installation procedures and job site conditions must be in accordance with flooring manufacturer's recommendations and TCNA installation standards. Whisper Mat CS is designed for thin-set applications. Installations requiring more than 3/8" of thin-set mortar need to be raised with a self-leveling compound or a pre-mortar bed and allowed to cure prior to installation of Whisper Mat CS. Use latex modified thin-set mortar to install tile over Whisper Mat CS.

**Composition and Materials:** Whisper Mat CS is constructed of a top layer of Reinforced Polyester Mesh Fabric embedded into rubberized adhesive, a middle layer of dense cross-linked poly-olefin foam sheeting for additional sound reduction properties with a bottom layer of aggressive rubberized adhesive with an attached release liner for peel & stick application. The membrane is tacky on the bottom providing superior adhesion to concrete, steel and wood substrates. The Polyester mesh fabric top makes an excellent bonding surface for latex modified thin set mortars. Whisper Mat CS contains no V.O.C's and is environmentally safe which allows it to be used in confined areas. The aggressive rubberized adhesive retains its flexibility throughout the floor's life span and will not dry out or decay with time.

**Size:** Available in 36" x 40" rolls.

## APPLICATIONS

The sound absorption properties combined with the anti-fracture properties makes Whisper Mat CS an excellent system to enhance ceramic and stone flooring installation performance in:

- Condominiums
- Office Buildings
- Apartments
- Hotels
- Single Family Homes
- Schools







Apply Primer



Cut to Correct Length



Remove & Press in Place



Apply Latex-Modified Thinset & Install Tile

## INSTALLATION:

Follow flooring manufacturer's recommended installation instructions. Installation and subfloor requirements must also conform to TCA standards. Flooring and membrane must acclimate to job site conditions before installation. Concrete subfloors must be dry, clean and free of dirt, grease, wax, paint, oil or anything that would adversely affect adhesion of the Whisper Mat.

Subfloor must be checked for excessive moisture. If subfloor moisture/vapor is beyond 4lb. emissions Whisper Mat CS membrane cannot be used (see "Limitations"). Leveling cements must be completely dry before membrane application.

Priming the subfloor: Always apply the Protecto Wrap #6000 primer to the subfloor and allow to dry (approx 20-30 min.) before installing the Whisper Mat CS to ensure a good bond.

Unroll Whisper Mat CS with the release liner side down. Cut the length approximately 12" longer than the distance to be covered to allow for a

trimmed fit. Fold back half of the length of the roll back over the other half of the material. Score through the release liner only, taking care not to cut completely through membrane. Pull release liner away from membrane where scored. As the release liner is pulled away, hand-smooth the membrane to contact the primed subfloor. Keep the release liner material close to the floor while pulling away, this will allow for a more controlled application of the membrane.

Take note: there will be an immediate and aggressive bond of the membrane to the primed subfloor. Realignment of the membrane can be difficult once adhered to the subfloor.

After Whisper Mat CS is adhered, ceramic or stone tiles can be installed with a latex modified thin set meeting the ANSI 118.6 standard. Follow mortar manufacturer's recommendations for trowel size and open time. Continue to follow the TCNA's installation requirements through the remainder of the installation.

## Accessories:

P.W. #6000 water based interior primer concentrate available in 1 gallon containers. Coverage area of approximately 500 sq. ft. per gallon when diluted 2 parts clean water to 1 part concentrate.

## Technical Data:

Thickness: 110 mils  
Color: Grey Top, black adhesive bottom  
Elongation: 500% minimum (rubberized adhesive only)  
Application Temperature: 45° to 120° degrees Fahrenheit  
In Service Temperature: -20° to 180° degrees Fahrenheit

## Warranty:

Whisper Mat CS is warranted to be free of defects in manufacture for a period of 5 years. Protecto Wrap assumes no warranty as to the installation of its products. Should a Protecto Wrap product prove defective during the term of this guarantee, Protecto Wrap will pay for replacement of the portion of the installation that involves the defective product. This payment will include finish materials, labor and installation; provided the cost per square foot to Protecto Wrap does not exceed the original cost of installation per square foot.

## System Performance:

Whisper Mat CS has been tested by the Tile Council of North America (TCNA) for system performance in accordance with ASTM C 627 (Robinson Type Floor Tester) and rated for light commercial applications.

Sound Control: Protecto Wrap's Whisper Mat-CS has been tested by a certified independent acoustical laboratory in compliance with ASTM E492-90 (Rev. 96) and ASTM E90-97. Test construction included 6" x 6" quarry tiles with latex modified thin set mortar over a 8" concrete slab with a sound rated gypsum board drop ceiling. Test results were Impact Insulation Class IIC 71 and Sound Transmission Class STC 72. Test results with other subfloor configurations are available by contacting Protecto Wrap Company.

## Application Standards:

ASTM C482 "Bond Strength of Ceramic Tile to Portland Cement"  
ASTM C627 "Robinson Floor Test"  
ASTM E492-90 (Rev. 96), "Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies using the Tapping Machine"  
ASTM E90-97 "Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements."



Premium Building Products  
That Protect

Protecto Wrap Company  
1955 South Cherokee Street  
Denver, CO 80223

800-759-9727  
Fax: 303-777-9273

www.protectowrap.com

Whisper CS 10/09

Protecto Wrap is a member of the following trade organizations:





Premium Building Products  
That Protect

## 1. Product Name

WhisperMat-CS

Primers & Accessories

- No. 6000 Water-Based Primer

## 2. Manufacturer

Protecto Wrap Co.  
1955 South Cherokee St.  
Denver, CO 80223  
(800) 759-9727  
(303) 777-3001

Fax: (303) 777-9273

E-mail: info@protectowrap.com

www.protectowrap.com

## 3. Product Description

### BASIC USE

WhisperMat-CS is a peel-and-stick sheet membrane that reduces impact and airborne sound transmissions and isolates finished flooring from subfloor cracks. It is designed for use with ceramic, porcelain and natural stone tile where sound absorption is required, specified or desired.

Constructed of a cross-linked polyolefin foam sheet combined with an aggressive rubberized adhesive and a polyester mesh fabric, WhisperMat-CS also has the flexibility and strength to withstand structural movement and concrete shrinkage cracks up to 1/4" (6.4 mm) without transferring stress load to finished tile. In addition, excellent moisture resistant properties make this a most comprehensive underlayment for tile floors.

WhisperMat-CS can be applied to any structurally sound and clean surface, including concrete, plywood, gypsum underlayments, precast floor panels, OSB, ceramic tile, terrazzo, natural stone, leveling and patching compounds, cement backerboard and existing VAT, VCT and vinyl floors. WhisperMat is also approved for application over radiant heated floors.

WhisperMat's sound absorption and anti-fracture properties make it an excellent system to enhance ceramic, porcelain and stone flooring installation performance in:

- Condominiums
- Office buildings
- Apartments
- Hotels

- Schools
- Single-family homes

### BENEFITS

- Sound reduction: IIC: 71; STC: 72; Delta IIC: 16
- Moisture resistant
- Anti-fracture resistant to 1/4" (6 mm)
- Provides thermal insulation
- Light commercial load rating
- Approved over radiant heated floors
- Uniquely thin system - 110 mil (2.8 mm)
- Economical

### PACKAGING

- WhisperMat-CS is available in 36" x 40' (914 mm x 12.2 m) rolls
- No. 6000 Primer is available in 1 gal (3.8 L) containers

### COMPOSITION & MATERIALS

WhisperMat-CS is constructed of a top layer of reinforced polyester mesh fabric embedded into rubberized adhesive; a middle layer of dense, cross-linked polyolefin foam sheeting for additional sound reduction properties; and a bottom layer of aggressive rubberized adhesive with an attached release liner for peel-and-stick application.

The underside of the membrane is tacky, providing superior adhesion to concrete, steel and wood substrates. The polyester mesh fabric top makes an excellent bonding surface for latex-modified thinset and medium bed mortars.

WhisperMat-CS contains no VOCs and is environmentally safe, which allows it to be used in confined areas. The aggressive rubberized adhesive retains its flexibility throughout the floor's life span and will not dry out or decay over time.

### ACCESSORY MATERIALS

No. 6000 Primer is a water based primer that contains no VOCs. It comes in 1 gal (3.8 L) containers.

### LIMITATIONS

- WhisperMat-CS is not intended for use as a waterproofing membrane
- WhisperMat-CS is not recommended for use on concrete floors where hydrostatic pressure exists or where moisture vapor transmission exceeds 4 lb (1.8 kg), as tested by the calcium chloride test method
- WhisperMat-CS is not recommended for use where horizontal floor movement is greater than 1/4" (6 mm)
- Existing cracks larger than 3/16" (4.8 mm) should be prepared with proper backing material prior to installation of membrane
- WhisperMat-CS is not recommended to cover



WhisperMat-CS reduces sound transmission through floors.

- joints or cracks larger than 3/8" (9.5 mm)
- For installations over plywood substrates and for expansion joints, refer to TCA Method F147
- For expansion joints, reference TCA Method EJ171
- Do not apply over marine-grade plywood or other substrates containing solvent based waterproofing preservatives that could chemically react with the membrane
- Do not use solvent based sealants or sealers where contact with membrane may occur
- When installing natural stone over WhisperMat-CS (or any other impervious membrane), it is important to maintain a thinset thickness of 3/8" (9.5 mm) or less after the tile is embedded, even if the mortar manufacturer allows for thicker installations. Thicker mortar beds can potentially provide sufficient moisture to cause some natural stones to warp or crown
- Installation procedures and jobsite conditions must be in accordance with flooring manufacturer's recommendations and TCNA installation standards

## 4. Technical Data

### APPLICABLE STANDARDS

#### ASTM International

- ASTM C482 Standard Test Method for Bond Strength of Ceramic Tile to Portland Cement
- ASTM C627 Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester



- ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers - Tension
- ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
- ASTM E492 Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine
- ASTM E2179 Standard Test Method for Laboratory Measurement of the Effectiveness of Floor Coverings in Reducing Impact Sound Transmission Through Concrete Floors

Tile Council of North America (TCNA) - Handbook for Ceramic Tile Installation

- TCA Method F147
- TCA Method EJ171

**APPROVALS**

Consult manufacturer for current information on approvals by code bodies and other industry entities.

**ENVIRONMENTAL CONSIDERATIONS**

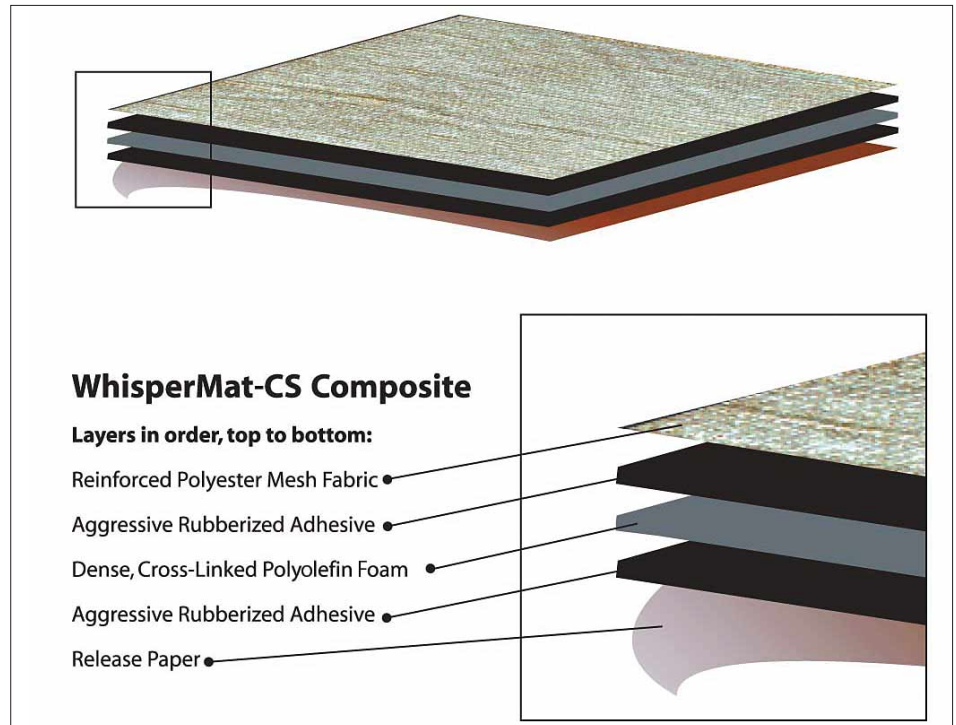
WhisperMat-CS contains no VOCs and is environmentally safe.

**PHYSICAL PROPERTIES**

- Thickness - 110 mil (2.8 mm)
- Color - Gray top, black adhesive bottom
- Elongation (ASTM D412) - 500% minimum (rubberized adhesive only)
- Application temperature - 45 - 120 degrees F (7 - 49 degrees C)
- In-service temperature -20 - 180 degrees F (-29 - 82 degrees C)
- Robinson Floor Test (ASTM C627) - Rated for light commercial applications

**SOUND PERFORMANCE**

Protecto Wrap's WhisperMat-CS has been tested by a certified independent acoustical laboratory in accordance with ASTM E492 and ASTM E90. Test construction included 6" x 6" (152 x 152 mm) quarry tiles with latex-modified thinset mortar over an 8" (203 mm) concrete slab with a sound rated gypsum board drop ceiling. Test results were Impact Isolation Class (IIC) 71 and Sound Transmission Class (STC) 72. Test results with other subfloor configurations are available by contacting Protecto Wrap Co.



WhisperMat-CS is made with 4 constraining layers.

**5. Installation**

**STORAGE & HANDLING**

Store all material inside in a dry space at temperatures between 50 and 90 degrees F (10 and 32 degrees C). Do not store in direct sunlight. Do not remove material from box until ready to use.

For cold weather applications, store in a heated airspace at a temperature of 50 degrees F (10 degrees C) or higher for at least 2 days prior to application. Remove only the material that can be applied within 2 hours.

**PREPARATORY WORK**

Handle and store product according to manufacturer's recommendations.

Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact. Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

Verify that site conditions are acceptable for installation. Do not proceed with installation until unacceptable conditions are corrected.

**Surface Preparation**

Follow flooring manufacturer's recommended installation instructions. Installation and subfloor requirements must also conform to TCNA standards.

Flooring and membrane must acclimate to jobsite conditions before installation. Concrete subfloors must be dry, clean and free of dirt, grease, wax, paint, oil or anything that would adversely affect adhesion of the WhisperMat.

Check subfloor for excessive moisture. If subfloor moisture/vapor is beyond 4 lb (1.8 kg) emissions WhisperMat-CS membrane cannot be used (see Limitations). Leveling cements must be completely dry before membrane application.

**APPLICATION**

**Priming**

Always apply the Protecto Wrap No. 6000 Primer to the subfloor and allow to dry (approximately 20 - 30 minutes) before installing the WhisperMat-CS to ensure a good bond.

**Layout**

Unroll WhisperMat-CS with the release liner side down. Cut the length approximately 12" (305 mm) longer than the distance to be covered to allow for a trimmed fit. Fold back half

of the length of the roll back over the other half of the material.

Score through the release liner only, taking care not to cut completely through membrane. Pull release liner away from membrane where scored. As the release liner is pulled away, hand-smooth the membrane to contact the primed subfloor. Keep the release liner material close to the floor while pulling away; this will allow for a more controlled application of the membrane.

Note - There will be an immediate and aggressive bond of the membrane to the primed subfloor. Realignment of the membrane can be difficult once adherence to the subfloor begins.

After WhisperMat-CS is adhered, ceramic or stone tiles can be installed with a latex-modified thinset mortar meeting the ANSI 118.6 standard. Follow mortar manufacturer's recommendations for trowel size and open time. For natural stone installations, see Limitations section.

Continue to follow the TCNA's installation requirements through the remainder of the installation.

## 6. Availability & Cost

### AVAILABILITY

WhisperMat-CS is manufactured in Denver, CO, and is available worldwide through a network of Protecto Wrap distributors. For detailed product information or to find a local representative or distributor, contact the Protecto Wrap Co.

### COST

WhisperMat-CS is competitively priced. Contact a local representative or the corporate office for information.

## 7. Warranty

WhisperMat-CS is warranted to be free of defects in manufacture for a period of 5 years. Protecto Wrap assumes no warranty as to the installation of its products. Should a Protecto Wrap product prove defective during the term of this guarantee, Protecto Wrap will pay for replacement of the portion of the installation that involves the defective product. This payment will include finish materials, labor and installation; provided the cost per square foot to Protecto Wrap does not exceed the original cost of installation per square foot.

## 8. Maintenance

None required. If installed in accordance with manufacturer's recommendations, WhisperMat-CS should last the life of the structure.

## 9. Technical Services

Complete technical assistance and information are available from Protecto Wrap field representatives and distributors or by contacting the manufacturer.

## 10. Filing Systems

- Reed First Source
- MANU-SPEC®
- Additional product information is available from the manufacturer.