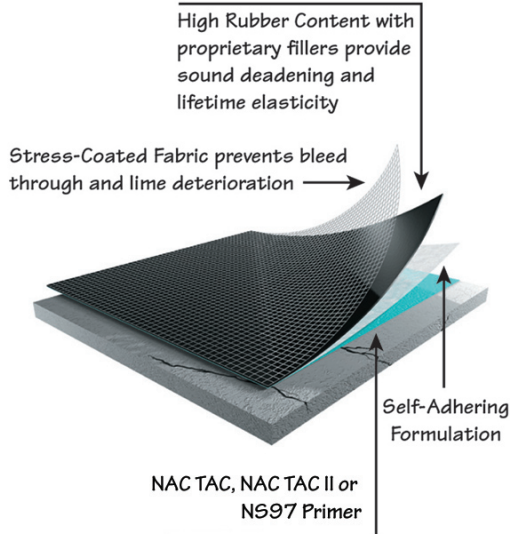


SAM[®] 3 90 Sound Control Membrane

Product Data Sheet

National Applied Construction Products, Inc. • 800-633-4622 • Fax: 330-644-3557 • www.NACproducts.com
Important: Proper installation of this system requires use of the appropriate primers and companion products. Read and understand Product Data (PDS) and Material Safety Data (MSDS) for all products prior to installation.

SAM[®] 3 90



Sound Control with Crack Isolation, Waterproofing and MVT Resistance

The SAM[®] 3 90 sound control membrane is designed for surfaces that require impact and audible sound reduction with an Impact Insulation Class (IIC) rating of not less than 50 and a Sound Transmission Class (STC) rating of not less than 50 as determined by ASTM Standards E90, E413 and E492.

In addition to sound abatement, SAM[®] 3 90 provides additional protection for crack isolation, waterproofing and as a moisture barrier. SAM[®] 3 90 provides crack isolation protection for floors with up to 3/8" lateral substrate movement. When used with an approved sealant, SAM[®] 3 90 also functions as a waterproofing membrane. It is also guaranteed to resist Moisture Vapor Transmission (MVT) up to 10#/1000SF/24HRS when used with NAC TAC or NS97 Primer or 7#/1000SF/24HRS when used with NAC TAC II Primer.

SAM[®] 3 90 substantially reduces reflective cracking and delamination between the substrate and floor surface and because it is a self-bonding system, it is easier to apply, and installs faster than other systems. Once applied, floor tile can be installed immediately, minimizing down time and labor cost.

How It Works

Packaged in 3' x 50' (915 mm x 15.24 mtr) rolls (150 sqft), SAM[®] 3 90 consists of a base layer of polymer modified elastomers permanently laminated to a unique "stress flex" fiber sheet to form a single, high performance, self-bonding membrane.

The elastomeric base layer functions as a buffer, absorbing the thermal and structural movement of the substrate, while its unique "stress flex" fiber sheet accommodates A118.4 or better latex mortars, organic adhesives and epoxy setting materials. NAC TAC, NAC TAC II or NS97 Primers are necessary components of the system (see page 2 for more information).

Features and Benefits

- Suitable for interior and exterior use
- Meets ANSI A118.12 and ANSI A118.10
- Protects against reflective cracking and delamination
- Independent Sound Tested
IIC = 70 min STC=67 min
- Safely covers asbestos flooring and provides an effective barrier against radon and mold
- Resists Moisture Vapor (MVT) 10#/1000SF/24HRS when used with NAC TAC or NS97 Primer or 7#/1000SF/24HRS when used with NAC TAC II Primer
- Eliminates need to cut tile to meet control/cold joints
- No need to remove old floors or recess new ones
- Can be used for thin-bed and medium-bed applications
- Self-bonding and self-healing formula
- Tile can be installed the same day as membrane
- Works with radiant-heated floors and tile warming systems

Installation Under

SAM[®] 3 90 is recommended for use under thin & medium-bed mortar installations (ANSI A118.4) of ceramic, porcelain, stone, marble, slate, granite tile, pavers, and brick. Hardwood, manufactured wood, commercial grade vinyl and other finished floors are also acceptable; check with manufacturer. Ideal for use with radiant heated floors and low voltage tile warming systems.

Suitable Substrates

Concrete: Poured, pre-stressed and pre-cast concrete. Concrete backerboard, mud beds, gypsum, lightweight concrete and patching compounds.

Wood: Exterior or exposure 1 plywood, APA-rated sheathing, Sturd-I-Floor, hardwood, tongue and groove and OSB with standard face. (Gap between sheathing as required.)

Other Substrates: Ceramic and porcelain tile, stone, terrazzo, VCT/VAT, metal, radiant-heated, painted and sealed floors and floors damaged by dry shrinkage and structural movement.

- For absorptive substrates use Moisture Lock 101® in accordance with manufacturer's instructions.
- A cementitious parge coat must be applied to concrete block and cured before priming.
- Substrates must be dry, well adhered, and clean of wax, petroleum sealers, dirt, grease, oil or other bond breakers.
- Some concrete boards are not suitable for the application of **SAM® 3 90** Membrane; check with manufacturer.
- Not recommended for vertical or overhead surfaces.
- Refer to current TCNA handbook for additional guidelines.

Short Form Specifications

SAM® 3 90 Sound Control Membrane


- Material:** Provide **SAM® 3 90** Sound Control Membrane as manufactured by:
NAC Products, Inc.
3200 S. Main St.
Akron, OH 44319
(800) 633-4622
www.NACproducts.com
or an architect approved equal.

- 90 mil thick load bearing membrane, capable of 3/8" crack suppression
- Self bonding, pressure sensitive sheet
- Compatible with most latex modified thinset mortars, epoxies and adhesives.

Provide NAC TAC, NAC TAC II or NS97 primer (**See primer chart on right**). Full floor coverage or material to be installed in a 36" wide strip application over control/saw cut joints as recommended by manufacturer.

- Equipment:** Damp mop, industrial vacuum, chalk line, 75-100# roller or flat trowel applying 50 lbs. of pressure/sq. inch, paint roller applicator or brush, utility knife.
- Warranty:** NAC Products, Inc. offers a range of limited and lifetime performance and materials warranties. Please contact customer service at 800.633.4622 for details or visit www.NACproducts.com for more information on warranties.

Primer Reference Chart

	INTERIOR APPLICATION			EXTERIOR APPLICATION		
	Below Grade	On Grade	Above Grade	Below Grade	On Grade	Above Grade
NAC TAC	✓	✓	✓	✓	✓	✓
NAC TAC II		✓	✓			
NS97				✓	✓	✓

Reference the **PRIMER PDS SHEET** for complete information of NAC Products, Inc. primers.

Technical Data

SAM® 3 90 Sound Control Membrane

Thickness: 90 mil, ±5 mil (2.29mm ±.027mm)

Seams: Butt joint application

Roll Sizes & Weights:

3' (915 mm) x 50' (15.24 m) @ 52 lb (22.7 kg)

Shelf Life: 1 year

Freeze Thaw: Stable

Property	Test Value	Test Method
System Crack Resistance	Rated High Performance	ANSI A118.12
Load Bearing, Bonded Waterproof Membrane	Pass	A118.10
Shear/Bond	Pass	A118.12
7-Day Shear Strength	>50 PSI	ASTM C482
7-Day Water Immersion	>50 PSI	A118.13 (5.1.4)
4-Week Shear Strength	>50 PSI	A118.13 (5.1.5)
Robinson Floor Test	Residential	ASTM C-627
Impact Insulation Class	70	ASTM E 492-04
Sound Transmission Class	67	ASTM E 90-04
*Field Impact Insulation Class	50	

* Modified for ceramic tile. 2 lb. (.91 kg) ball dropped 8' (2.44 m) on an 8" x 8" (203 mm) porcelain tile bonded to ECB® Anti-Fracture Membrane & Strataflex.

For full test results, please contact NAC Products, Inc. at 800.633.4622.