

NobleSeal[®] SIS

Sound Reduction Sheet Membrane

U.S. Patent No. 6,077,613



THE SOLITUDE OF HOME



Simple Solutions... Proven Performance



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DETAILS, VIDEOS,
AND DIAGRAMS ONLINE



SOUND REDUCTION MEMBRANE

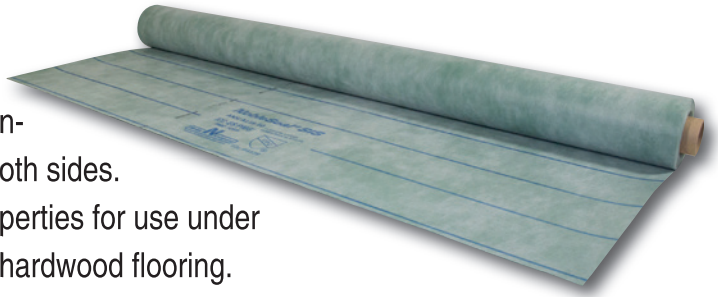
with Crack Isolation and Waterproofing properties

NobleSeal® SIS is a composite sheet membrane manufactured from Chlorinated Polyethylene (CPE), a non-plasticized elastomer, with polyester fabric laminated to both sides.

NobleSeal SIS incorporates superior sound reduction properties for use under hard surface floors, including ceramic and stone tile, and hardwood flooring.

Ideal for condominiums, schools, hotels, offices, libraries, homes, apartments, and hospitals.

NobleSeal SIS offers **sound reduction**, as well as **crack isolation** and **waterproofing** all in one thin, non-compressible sheet.



- IIC = 62, STC = 59 (concrete substrate with sound rated ceiling) as tested in accordance with ASTM E492-90
- ASTM E2179 ΔIIC 12
- Meets ANSI A118.13 standard for sound control membranes
- Exceeds “High Performance” criteria for ANSI A118.12 (System Crack Resistance)
- Meets ANSI A118.10 for thin-bed waterproofing
- Lifetime Warranty

INSTALLATION CONSIDERATIONS

ROLL SIZE

6' x 33.3' = 200 sq. ft.
.050" (1.25mm) thick

BOND COAT

NobleBond EXT
Modified thin-set

INSTALLATION DETAILS

For full installation details and commentary, refer to TCNA Handbook and ANSI A108 Standards. Read and follow installation instructions for NobleSeal SIS prior to installing. Instructions for NobleSeal SIS are available at www.noblecompany.com.

SOUND CLASSIFICATIONS

STC - SOUND TRANSMISSION CLASS

Airborne sound (voices, TV, music, etc.)

IIC, UBC, and IBC codes call for minimum of 50 STC value

IIC - IMPACT INSULATION CLASS

Sounds from impact (walking, moving, or dropping objects)

IIC, UBC, and IBC codes call for minimum of 50 IIC value/
FIIC value of 45 (field test)



ASTM E90

ASTM E989

ASTM E479

ASTM E492

ANSI A118.13



IIC CLASS COMPARISON

Assembly Configuration	IIC	Assembly Configuration	IIC	Assembly Configuration	IIC
4" concrete substrate	24	Tile floor Wood joists Gypsum ceiling	33	Carpet on pad Wood joists Batt insulation (in joist cavity) Resilient channel Gypsum ceiling	66
6" concrete substrate	28				
8" concrete substrate	32				
Tile floor Acoustic underlayment Concrete substrate	45-53*	Tile floor Wood joists Resilient channel Gypsum ceiling	39	Carpet on pad Concrete substrate	70
Tile floor Concrete substrate Spring isolation hangars Batt insulation Gypsum board ceiling	50				
Tile floor Acoustic underlayment Concrete substrate Spring isolation hangars Batt insulation Gypsum board ceiling	56-64*	Tile floor Wood joists Batt insulation (in joist cavity) Resilient channel Gypsum ceiling	44	Carpet on pad Concrete substrate Spring isolation hangars Gypsum board ceiling	73
Tile floor Floating concrete floor Acoustic underlayment Structural concrete substrate	67	Tile floor Acoustic underlayment Wood subfloor Wood joists Batt insulation (in joist cavity) Resilient ceiling	50-55*	Tile floor Floating concrete floor Acoustic underlayment Structural concrete substrate Spring isolation hangars Batt insulation Gypsum board ceiling	76
Tile floor Acoustic underlayment Concrete substrate Spring isolation hangars Batt insulation Gypsum board ceiling	56-64*				

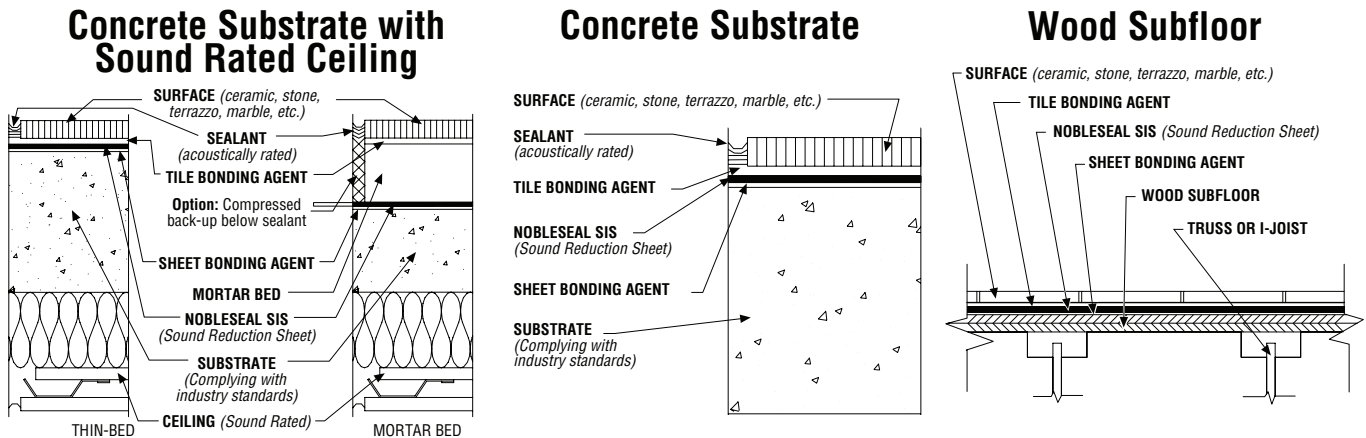
* Lower number is for thin acoustic underlayment (< ¼") and higher number is for thick acoustic underlayment (> ¼")

SOUND REDUCTION COMPETITIVE COMPARISON

	NobleSeal SIS	Cork			Rubber		
Material	CPE core with fleece on both sides	Cork granules with binder and antimicrobial additive			Virgin recycled rubber/foam		
Thickness	.050 in	3 mm .12 in	6 mm .25 in	12 mm .50 in	3 mm .12 in	5 mm .20 in	12 mm .50 in
Sound Reduction per ANSI A118.13	Yes	Yes			Yes		
ASTM C627 (Robinson Test)	14 cycles "Extra Heavy Service"	Up to 3 cycles "Residential"			Up to 6 cycles "Light Commercial"		
Waterproofing per ANSI A118.10	Yes	No			No		
Crack Isolation "High Performance" per ANSI A118.12	Yes	No			No		
Compressibility	n/a	≤ 35%			18.2%		

* Values for Cork and Rubber are from published competitive information (non-specific manufacturer). Refer to manufacturers' specifications for detailed performance values.

TYPICAL INSTALLATION DETAILS – NOBLESEAL SIS



HOW TO CHOOSE OR RECOMMEND A SOUND REDUCTION SYSTEM

REALISTIC EXPECTATIONS FOR IIC RATINGS

- With no sound rated ceiling assembly, it is very difficult and expensive to achieve IIC rating value of 55 or more (given a 6" concrete slab and any hard surface flooring).
- Hard surface materials cannot provide the same IIC rating as carpet and pad.
- HUD IIC guidelines: Grade I Luxury IIC = 55; Grade II Average IIC = 52.
- Match test data as closely as possible to your construction detail and flooring materials.
- A tile floor will deliver a lower IIC rating (3-5 IIC points) with the same sound control product as a wood floor.
- Sound rated ceiling assemblies are not standardized. Get the full construction detail of any test data you are considering including ceiling assembly.
- Field test data is subject to more variables than lab data and should be considered appropriately – and is a more realistic test platform to base your sound control and other environmental requirements from.

BE AWARE OF THE NUMBERS GAME

- Products marketed showing STC and IIC values in the high 60's or low 70's are impossible to achieve on a concrete slab with hard surface flooring without an elaborate and expensive sound rated ceiling and floating slab assembly.
- Products marketed based on superior performance over "specific" frequencies - ASTM standards require results calculated over the entire frequency range.
- Know how the test was performed. A few products publish IIC test data with no finished flooring bonded to the material, so acoustical IIC deltas will be higher than data in a true installed condition.
- Some sound reduction products are too compressible for the direct bonding of ceramic tile or natural stone tile, which can lead to performance issues.



QUALIFYING BENEFITS OF NOBLESEAL SIS

- Thin and consistent membrane material
- Provides superior bonding surface
- IIC = 62; STC = 59 (with ceiling assembly)
- Provides waterproofing capabilities
- Provides "High Performance" crack isolation



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File #SS012017-05 | 01/17 | #SS102016-08

