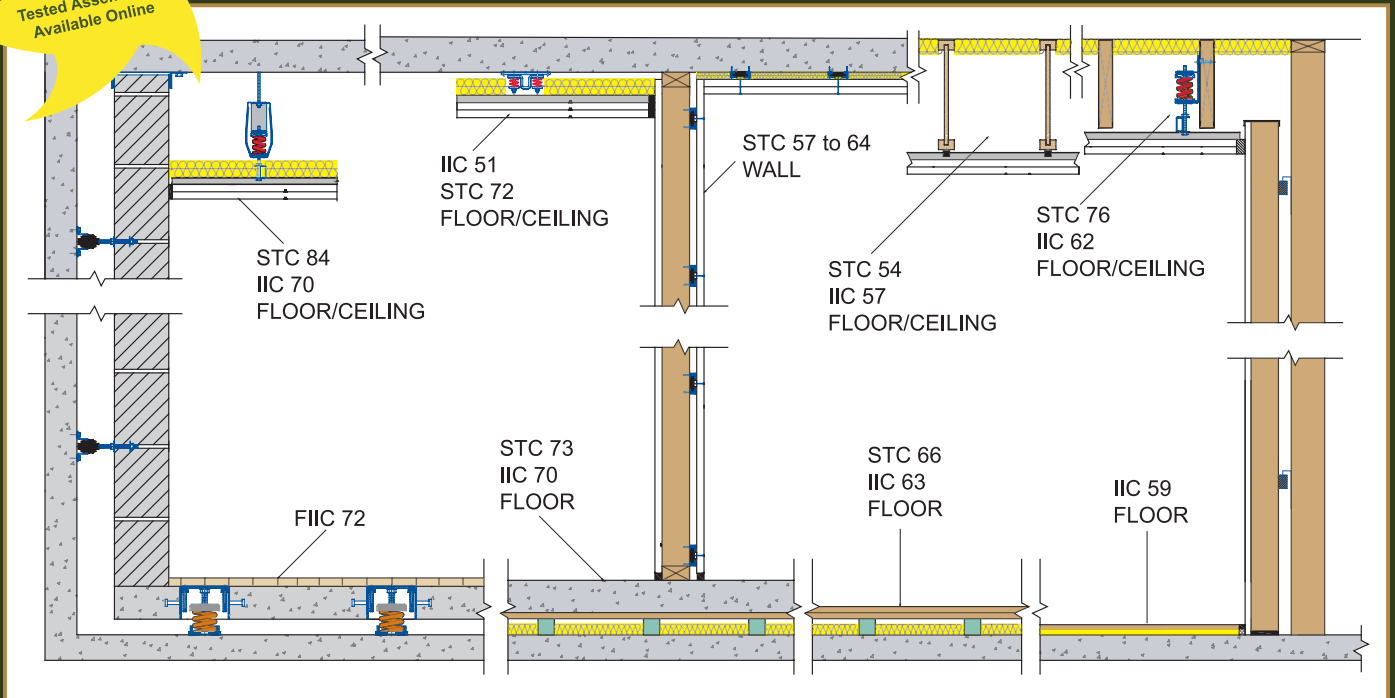


Over 80 Sound
Tested Assemblies
Available Online



Sound Isolation Products for Constructing Quiet Spaces



High STC Walls • Sound Control Ceilings • Floor Underlayments
Duct/Pipe Noise Wrap • Floating Floors • Structural Bearings

Kinetics® composite construction reduces sound transmission

The Problem

Noise and vibration are major sources of occupant complaint in modern buildings. Floors, walls, and ceilings reduce noise according to the Mass Law, which states that doubling of building weight will reduce the transmission of sound by up to 6 decibels (dB). Example: a 4" concrete floor has a sound transmission loss (TL) of 42 dB at 250 Hz. Doubling of the floor to 8" only increases the TL to 48 dB. A 6 dB reduction is about 25% quieter.

The Solution

By introducing Kinetics® composite construction systems, one can achieve substantially higher sound transmission loss. Kinetics® Floating Floors, Isolated Ceilings, Isolated Partitions, and Composite Barrier Materials all far exceed the Mass Law capability and provide greater airborne and structure-borne noise control.

Certification

Kinetics Noise Control provides certified engineering drawings upon request for its products to assure compliance with job specifications. Copies of independent test reports on specific systems are available to architects, engineers, and acoustical consultants upon request, or they can be downloaded from our web site www.kineticsnoise.com/arch/.

Concrete or Wood Floating Floors





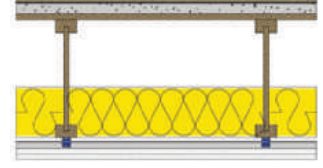
Description	STC	IIC	Sections
4" Concrete Slab 1/2" Plywood 2" Kinetics® RIM L-2-12 2" Topping Slab Precast Concrete 14" Tee	73	70	
3" Lightweight Concrete (polished) 1/2" Plywood 2" Kinetics® RIM L-2-16 3-1/2" Wood Deck Subfloor Steel Beam and Glue Lam Joist Support No Ceiling	NNIC* 62	FIIC 54	
3/4" Oak Hardwood Floor 3/4" Sleepers 1-1/2" Gypsum Concrete 2 Layers 1/2" OSB 1" Kinetics® RIM-L-1-16 1" Oak Hardwood Floor 3" Subfloor	FSTC 50	FIIC 45	
3/8" Plywood 2 Layers 3/4" Plywood 2" Kinetics® RIM-I-2-16 6" Concrete Slab	66	63	
Add 2 Layers 5/8" Gypsum Board between 2 Layers 3/4" Plywood	71	64	
Shredded Rubber Flooring 4" Concrete Slab Kinetics® LSM Isolator 2" Air Space, Vented 6" Structural Slab		FIIC 73	
4" Reinforced Concrete Slab Kinetics® FLM Isolator w/ Neoprene Pad 2" Air Space 6" Structural Slab	69	61	
4" Reinforced Concrete Slab Kinetics® FLM Isolator w/ Model KIP Pad 2" Air Space 6" Structural Slab	69	61	

*Normalized Noise Isolation Class, field test for airborne noise reduction


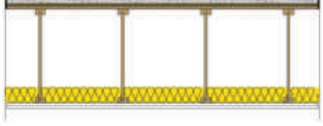

Floor and Ceiling Isolation

Description	STC	IIC	Sections
4" Concrete Slab 1/2" Plywood 2" Kinetics® RIM-Q-2-16 6" Concrete Slab Kinetics® ICC Isolation Hanger Cold Rolled Channel (CRC) Drywall Furring Channel 3-1/2" Fiberglass Insulation 2 Layers 5/8" Gypsum Board	94	82	

Ceiling Isolation

Description	STC	IIC	Sections
3/8" Wood Floor 1-1/2" Concrete Slab 3/4" Plywood 2 x 10 Joists Kinetics® ICW Ceiling Hanger Cold Rolled Channel (CRC) Drywall Furring Channel 3-1/2" Fiberglass Insulation 2 Layers 5/8" Gypsum Board	76	62	
Without Concrete	59	52	
6" Concrete Slab Kinetics® KSCH Ceiling Hanger Rock Wool Batts Cold Rolled Channel (CRC) Drywall Furring Channel 2 Layers 5/8" Gypsum Board	72	51	
6" Concrete Slab Kinetics® IsoGrid Ceiling Hanger 6" Airspace Filled w/ Fiberglass Insulation Cold Rolled Channel (CRC) Drywall Furring Channel 2 Layers 5/8" Gypsum Board	63	50	
6" Concrete Slab Kinetics® ICC Isolation Hanger Cold Rolled Channel (CRC) Drywall Furring Channel 3-1/2" Fiberglass Insulation 2 Layers 5/8" Gypsum Board	84	70	
Hardwood Floor with 1/8" Pad Gypsum Concrete 3/4" Plywood 14" I-Joist 6" Fiberglass Insulation Kinetics® IsoMax Clips 7/8" Drywall Furring Channel 2 Layers of 5/8" Gypsum Board	54	57	

Sound Rated Floors

Description	STC	IIC	Sections
Ceramic Tile 7/16" Glass Mesh Mortar Unit/Bond Coat 5/8" Kinetics® SR Floorboard 8" Flexicore Precast Subfloor	59	59	
Vinyl Floor Covering 1" Gypsum Concrete 5/16" Kinetics® Soundmatt 3/4" Oriented Strand Board (OSB) 18" I-Joist 3" Mineral Fiber Batts Resilient Channel 5/8" Gypsum Board		FIIC 51	
Hardwood Floor with 1/8" Pad 1-1/4" Gypsum Concrete 1" Kinetics® Ultra Quiet SR Floorboard 3/4" Plywood 14" I-Joist 6" Fiberglass Insulation Resilient Channel 2 Layers of 5/8" Gypsum Board	54	59	

Sound Design and Construction Practice

The following items should be considered in order to achieve full benefit from Kinetics products.

1) An acoustical consultant should be retained whenever possible.

2) Holes or any openings through partitions, ceilings, or floors should be caulked or sealed. Sound leaks of any kind will significantly reduce the effectiveness of any noise control product.

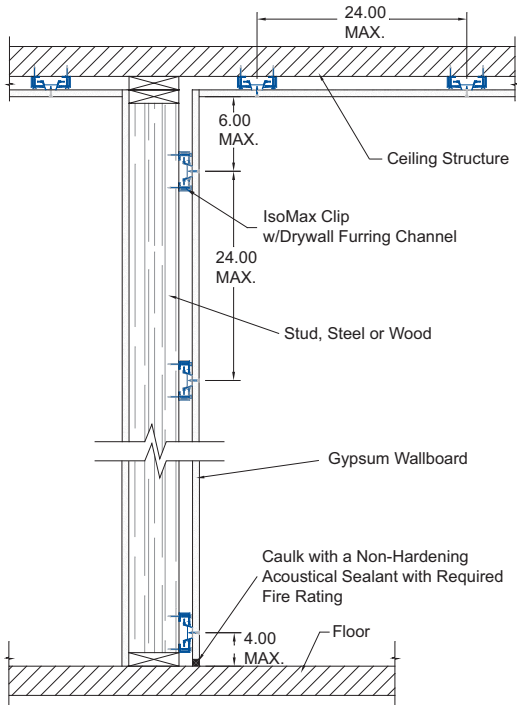
3) Doors and windows in the partitions should exhibit high STC ratings to maintain high performance.

4) Electric outlets, thru-the-wall cabinets, etc., should not be placed back-to-back in order to prevent potential excessive transmission of noise. Treat outlets with Kinetics IsoBacker Putty Pads.




5) Acoustical treatment and absorptive finishes may be used in noisy rooms to reduce the reverberation and overall noise level within these rooms.

6) All floating floors, partitions, and ceilings should be constructed with care. Construction errors such as rigid ties, fastener short-circuiting, improper floor reinforcing, etc., can create a sound flanking conduit and should be avoided. Supervision by a representative of the isolation material manufacturer can minimize field errors.

Resilient Sound Isolation Wall and Ceiling Clip Model IsoMax



- IsoMax cost effectively sound isolates gypsum board and furring channel from the steel and wood framing or concrete/masonry structure.
- Superior to conventional resilient channel in performance. Lower installed cost than double stud wall assemblies with similar performance.

Description	STC	Sections
2" x 4" Single Wood Stud 1 Layer 5/8" Gypsum Board, each side. IsoMax with Furring Channel, one side. Fiberglass Insulation	57	
Add 2nd Layer 5/8" Gypsum Board, on one side.	61	 

See all 11 acoustical tests for IsoMax Wall, Floor and Ceiling assemblies at www.kineticsnoise.com/arch/tests/isomax.aspx



Floor Underlayment for Green Buildings Model IsoLayment

IsoLayment BR

- 3 mm with engineered wood floors Δ IIC 21
- 9 mm with engineered wood floors Δ IIC 24

IsoLayment HB

- 5 mm with ceramic tile Δ IIC 19
- 9 mm with ceramic tile Δ IIC 23



Pipe/Duct Lagging Model KNM-100ALQ

- Controls "breakout" noise
- Class A fire rated per ASTM E-84
- Insertion Loss (noise reduction) test results now available as a duct wrap
- 54" wide blanket allows for 6" overlap for easy installation

Insertion Loss (Frequency, Hz)

As duct lagging over 2-inch fiberglass

63	125	250	500	1000	2000	4000
2	10	16	27	35	34	33