

SECTION 13 48 00

SOUND, VIBRATION, AND SEISMIC CONTROL RIM (3") SYSTEM FOR CONCRETE FLOATING FLOOR

PART 1 GENERAL:

1.01 WORK INCLUDED:

- A. Furnish all labor, materials, tools, and equipment; and, perform all operations necessary for the complete execution of the installation of Kinetics Noise Control, Inc. (Kinetics) RIM (3") System as shown on contract drawings and/or indicated in contract documents.
- B. Related work shall include but not be limited to:
 - 1. Caulking: Section 079200.
 - 2. Concrete and concrete reinforcing: Section 033000.
 - 3. Sound Absorption Materials used as cavity fill unless included in a specified "System" of this Section: Section _____
 - 4. Pipe, conduit, ductwork packing: Section _____
 - 5. Floor drains: Section _____

1.02 SYSTEM DESCRIPTION:

- A. Flat, smooth structural surface, cleared of debris and broom swept; and, any required waterproofing properly installed;
- B. Kinetics Perimeter & Penetration Interface (PPI) material with removable tear strip shall be attached using Kinetics spray adhesive at perimeter(s) e.g., curb, wall, formwork, and around any protrusions penetrating through isolated floor e.g., duct and pipe;
- C. Kinetics RIM (3") System (factory assembled), consisting of pre-punched fiber glass batt insulation, 1-1/2" thick, and Kinetics KIP (3") fiber glass isolators; system designed to create a 3-inch (3") airspace (nominal) (**Note to Specifier: wood sleepers may be installed over isolators to increase airspace**);
- D. Pouring form, minimum 5/8"-thick, C-grade, sheathing, EXP-1, fir, 5-ply plywood, interconnected with Kinetics Junction Plates, and covered with Kinetics poly sheeting, overlapped and taped at seams, and extended over top of perimeter isolation material;
- E. Isolated concrete slab, 4-inches thick minimum (**Note to Specifier: typically standard weight, 3,000-psi compressive strength concrete**) properly reinforced and cured; slab and reinforcement design by qualified engineer;

F. Kinetics perimeter sealant seals perimeter isolation material at tear strip cavity.

1.03 QUALITY ASSURANCE:

- A. Kinetics RIM (3") System shall be engineered and fabricated by Kinetics Noise Control, Inc., Dublin, Ohio Represented by KPA Architectural Products in New England – Contact Keith Peterson (508) 591-7500
- B. Kinetics KIP fiber glass isolators shall be resistant to oil, water, acids, and fungus. Isolators shall be capable of sustaining a 100% overload without damage, permanent set, collapse, or permanent loss in specified natural frequency. Isolators shall perform properly for the life of the installation.
- C. Pre-installation Conference to review installation procedures; conference can be conducted via Internet/telephone conference call or at project site (as required).
- D. Kinetics RIM (3") System shall be installed by contractor either under direction from or by authorization of Kinetics or their qualified agent.
- E. Isolation materials shall not be installed during inclement weather when areas receiving same are temporarily exposed to the weather. Appropriate measures shall be taken to ensure work area remains dry during and after installation.

1.04 SUBMITTALS:

- A. Shop Drawings: The Contractor shall have Kinetics or Kinetics' representative prepare submittal drawings that include layout, section, and transition details, load conditions, isolator natural frequency and load deflection curves, and construction sequence. Contractor shall transmit submittal package to the Design Team for approval. Contractor is responsible for supplying all loads supported by the RIM system and related documents for coordination. Architect approved shop drawings required prior to installation.
- B. Isolator Selection: Bearing surface area and spacing of each isolator shall be determined by Kinetics on the basis of final evaluation of concentrated and uniformly imposed loads supplied to Kinetics by the Design Team. At maximum acoustical design load, isolator shall maintain an essentially constant natural frequency of 9 Hz or lower (within 2 Hz over entire load range of floor system) and uniform deflection of the floating floor.
- C. Substitutions: An alternate for Kinetics RIM (3") System which incorporates non-permanent, performance-deteriorating isolation materials such as cork, rubber, neoprene, or polyurethane products will not be accepted. Thermal-type fiber glass and wood pulp board product isolators will not be accepted. Alternate must be submitted for approval ten (10) days prior to bid letting.
- D. Reports: Manufacturer to provide report showing expected Total System Performance including expected Total System Natural Frequency, expected Isolator Deflection, and expected Isolation Efficiency.

1.05 DELIVERY, STORAGE, AND HANDLING:

- A. Deliver and store materials in Kinetics's original and unopened packaging with product nomenclature clearly marked on the package(s).

PART 2 PRODUCTS:

2.01 MATERIALS:

- A. Kinetics RIM (3") System (supplied by Kinetics):
 - 1. RIM System (3")
 - 2. PPI Perimeter & Penetration Interface (3/4" thick)
 - 3. Spray adhesive
 - 4. Junction Plates
 - 5. Poly sheeting and seam tape
 - 6. Perimeter sealant
- B. Plywood pouring form (5/8"-thick minimum, 5-ply). Pouring form shall not be anchored to RIM System KIP isolators.
- C. Concrete and concrete reinforcement (supplied by others) per Specification _____.

PART 3 EXECUTION:

3.01 INSTALLATION:

- A. Installation of all sound isolation materials specified herein shall be accomplished following Kinetics's and/or the Design Team's written instructions. Installation instructions shall be submitted to the Design Team for approval prior to beginning of work.
- B. The installing contractor shall carefully examine conditions at the job site before commencing specified work. Any surfaces not properly prepared to receive work of this section shall be reported to the Design Team's representative and work shall not commence until conditions are satisfactory.
- C. All isolation materials installed in areas exposed to the weather shall be temporarily protected by 6 mil polyethylene film covering until permanent waterproofing is achieved. The work shall be protected at the end of each day's work.

END OF SECTION