

Freedom Step and Freedom Step Pro

3 Part Canadian Specification

This specification has been numbered, organized and formatted in accordance with the MasterFormat, Section Format and Page Format documents published jointly by Construction Specifications Canada (CSC) and Construction Specifications Institute (CSI).

The content of this specification is of general order and must be adapted to the specific requirements of a project. It is offered as a guide to experienced and knowledgeable construction professionals who must assume full responsibility for its interpretation and use. Wilrep Ltd. is the material manufacturer.

The square brackets [] containing texts indicate an option to be considered/inserted by the specifier. Remove brackets and unused options before printing.

Part 1. General

1.01 SECTION INCLUDES

A. Design, fabrication and installation of a floating floor noise and impact control system specified herefrom the structural building floor upwards, and generally as listed below:

1. Pre-engineered oriented strand board (OSB) subfloor panels complete with rubber deceleration isolation pads and fiberglass insulation.
2. Perimeter isolation board used to decouple the floating floor (subfloor panels and wearing surface) from sidewalls and penetrations such as [columns,] [pipes,] [electrical appurtenances,] [and] [_____].
3. Co-ordination of all mechanical and electrical requirements related to Work of this Section.

1.02 RELATED REQUIREMENTS

A. Structurally sound [concrete] [wood] substrate [Section 03 30 00/06 10 00]

SPEC NOTE: Include other type wearing surface or floor covering as required.

1.03 SUBMITTALS

A. Submit the following in accordance with Section [01 33 00 – Submittal Procedures]

1. Shop Drawings: Provide shop drawings showing:

A. Dimensioned Floor Layout.
B. Layout of Floating Floor Panels.

2. Acoustical Test Data from independent laboratory showing [minimum Delta IIC 35 rating for "Standard" panel] [minimum Delta IIC 44 rating for "Pro" panel].

3. Product Data: Acoustic floating floor manufacturer's printed product literature and Installation Instructions.

4. Samples: Duplicate 590 mm x 590 mm (23-1/4" x 23-1/4") samples of pre-engineered panels c/w rubber deceleration pads and fibreglass insulation.

1.04 QUALITY ASSURANCE

A. Manufacturer: to have minimum of 10 projects of similar type in the past 5 years.

B. Mock-up: Construct mock-up consisting of a minimum area of 2 panels x 2 panels, including perimeter isolation board.

1. Obtain [Consultant's] [Architect's] [Engineer's] approval of mock-up prior to proceeding with floating floor installation.

2. Erect mock-up as part of floating floor installation, leave in place after acceptance.

3. Approved mock-up to serve as standard of quality of finished installation.

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver and store materials in original wrappings with manufacturer's seals and labels intact. Protect from damage and environmental conditions in accordance with manufacturer's recommendations.

B. Neatly stack subfloor panels to prevent damage. If panels must be removed from skids for ease of handling or temporary storage on-site prior to installation, stack panels exactly as they were received on the skids.

C. Handle subfloor panels to prevent damage to edges or surfaces. Remove damaged or deteriorated materials from site.

1.06 ENVIRONMENTAL REQUIREMENTS

A. Store subfloor panels in spaces where it is to be installed for 24 hours prior to installation.

B. Store subfloor panels indoor protected from weather and moisture; do not install panels when wet.

C. Ventilate building spaces as required to remove excess moisture.

D. In cold weather, maintain continuous, uniform building temperatures of not less than 13°C (45°F) or more than 38°C (100°F) for a minimum period of 48 hours prior to, during, and following subfloor panel installation.

Part 2. Products

2.01 ACCEPTABLE MANUFACTURER

A. Floating floor system: Freedom Step Floating Subfloor Panel System manufactured by Wilrep Ltd., 1515 Matheson Blvd. East, Unit C-10, Mississauga, Ontario L4W 2P5. Tel: 905-625-8944; Fax: 905-625-7142; Toll Free 1-888-625-8944; Email: info@wilrep.com; Web: www.acoustiguard.com

B. Substitutions: Not permitted, however requests for substitutions will be considered providing substitute products and methods of execution are submitted at least 10 days prior to bid closing date.

C. Accompany requests with evidence substantiating similarity in quality, including technical data sheet and formal 3-Part specifications.

2.02 MATERIALS

A. Rubber Deceleration Isolator Pads: SBRI rubber, containing no fillers of any kind that would degrade performance or durability; 70 mm x 70 mm (2-3/4" x 2-3/4") pyramid design deceleration isolators with 9 pads per panel to produce even deflection.

B. Rubber Isolator Pad Mechanical Fasteners: Staples to suitable length for pad height.

C. Insulation Board: Density 26 kg/m³ (1.6 pcf) for [19 mm (3/4") thick "Standard" panel] [38 mm (1-1/2") thick "Pro" panel] attached to entire underside of subfloor panel board around rubber isolators.

i) Acoustical Rating: NRC .80 for 38 mm (1-1/2") thick 'Pro' panel insulation to ASTM C 423, Type A Mounting.

ii) Burning Characteristics: Does not exceed 25 Flame Spread, 50 Smoke Developed when tested in accordance with ASTM E 84, CAN/ULC S102, NFPA 90A and 90B, NFPA 255 and UL 723.

D. Insulation Fasteners: Staples to suitable length for insulation thickness.

E. Subfloor Panels: 590 mm x 590 mm (23-1/4" x 23-1/4"), actual 590 mm x 590 mm OSB (oriented strand board); 16 mm (5/8") thickness; T & G edges. Panel weight approx. 3.8 kg. (8.4 lbs.).

F. Perimeter Isolation Board: Closed cell polyethylene 6 mm (1/4") thickness x height to suit overall thickness of floating floor panel and finished floor topping.

G. Perimeter Caulking Compound: Non-hardening, non-drying, non-bleeding, caulking tube, trowel or pour grade, fire rated as required by local codes, Type_____.

H. Floating Floor Drains: By Others; drains of type and size suitable for project and isolated so as to have no rigid connection between the floating floor assembly and building structure.

I. Plywood Overlay: By Others; to be of suitable strength and thickness to suit application and floor finish. Refer to Manufacturers Recommendations.

2.03 DESIGN CRITERIA

A. Provide acoustical isolation to prevent transmission of sound, vibration and impact generated by [live loads] [or] [_____] to adjacent building areas. This requirement includes isolation of all items passing through the floating floor assembly.

B. Design load calculations for rubber isolator pads and layout to be based on the weight of the floating floor plus the weight of equipment, machines, fixtures and constructions supported by the floating floor plus 25% of the specified live load.

C. Durability of rubber isolator pads to be 25 year minimum without significant degradation of performance. Refer to Manufacturer's Limited Warranty.

Part 3. Execution

3.01 EXAMINATION

A. Before installation, examine alignment, smoothness and evenness of substrate. Notify [Contractor] in writing if substrate does not comply with requirements of acoustic subfloor manufacturer. If a concrete

structural slab is to be waterproofed or sealed, ensure coating is sufficiently cured prior to installation of panels. If coating remains tacky or exhibits excessive grip, cover with minimum 3 mil polyethylene sheeting to facilitate installation of the panels. Condition of concrete or wood subfloor must allow panels to move freely when tapped into position.

B. Verify items provided by other trades are properly installed.

C. Commencement of work will imply acceptance of substrate conditions.

3.02 PREPARATION

A. Ensure installation area is free of all debris, broom clean, and dry.

B. Brush or vacuum walls approximately 305 mm (12") up from structural floor to ensure walls are sufficiently clean to receive perimeter isolation board adhesive.

3.03 INSTALLATION

A. General

1. Install acoustic floating floor strictly in accordance with manufacturer's printed instructions.

2. Co-ordinate work with related work to avoid rigid contact with the building.

B. Perimeter Isolation Board

1. Install perimeter isolation board at sidewalls and around penetrations such as [columns,] [pipes,] [drains,] [and] [electrical items] [_____].

2. Ensure height of perimeter isolation board exceeds height from structural substrate to top of [concrete] wearing surface by at least 25 mm (1").

3. Adhere perimeter isolation board using single bead of good quality panel adhesive with high initial tack located at approximately the middle of the board. Press board firmly to wall and make sure the adhesive is placed below the finished floor height. Tape vertical joints including corner joints using construction sheathing tape or duct tape at these locations and penetrations.

C. Acoustic Subfloor Panels

1. Following acoustic subfloor manufacturer's written instructions, install pre-engineered and prefabricated subfloor panels [according to layout drawings].

2. Optional or for Permanent Installations; apply a thin ribbon of wood glue in 'groove' of receiving panels prior to installing subsequent panels.

3. Using rubber mallet and/or spare piece of wood, tap panels into alignment, taking care not to damage panel edges. Install panels in a brick pattern as per installation instructions. Ensure panels stay square and tight to adjacent panels.

4. Once each panel is aligned, Staples can be used at each panel joint to help prevent panel misalignment. Use an air stapler will ensure staples are well seated and flush to surface of panels.

5. As the work progresses, ensure any factory installed rubber deceleration isolators are in place. If additional site installed isolators are required, staple isolators to panel bottom. Cut away fiberglass insulation to expose underside of panel prior to fastening isolators.

6. Sound isolate drains if present.

3.04 CLEANING

A. Upon completion of work, remove all materials, equipment and debris from site.

B. Leave work area and adjacent surface in condition acceptable to [Consultant] [Architect], [Engineer].

C. Protect uncured concrete with markers, barriers or signs.

3.05 WASTE MANAGEMENT AND DISPOSAL

A. Separate waste materials for [reuse] [and] [recycling] at nearest used building materials facility.

B. Divert unused caulking, sealants and adhesive materials from landfill through disposal at hazardous materials depot.