

SECTION 10270

NETFLOOR ECO CA-400R Cable Management Flooring System

The system provides a Low-Profile cable management access flooring structure with accessible cable trenches throughout in a grid pattern, facilitating easy distribution of electrical, networking and telecommunication cables under easily removable cable trench caps.

Part 1. System Description

- 1.01 The Cable Management Flooring System will consist of Main Panels, Base Connectors to connect Main Panels in a manner that sets them apart, forming fully accessible cable trenches, Central caps and Flank Caps to cover the cable trenches. Total height of the floor shall not exceed 40 mm (1.57").
- 1.02 Cable trenches shall be reticulated both ways within every 600 mm (23.62"). Clearance of cable trenches shall be not less than 34 mm (1.34"). Width of the cable trench shall be not less than 90 mm (3.54"). Cable trenches shall be fully accessible, covered by removable trench caps. The trench caps will be made of steel, protection against corrosion by electro deposition.
- 1.03 The Cable Management System when assembled will meet NFPA 253 class 1 fire safety rating.
- 1.04 The Cable Management Systems when assembled will meet BS: 476 Part 7 Class 2 classification.
- 1.05 Main Panel of the system shall consist of 16 sub-panels supported on 64 pedestals. The main panel shall be of size no larger than 510 mm X 510 mm (20.08" X 20.08").
- 1.06 The system shall meet concentrated load and uniform distributed load requirements for general office usage, in accordance with federal, state or municipal codes.
- 1.07 Quantities, finished floor height, accessories and site locations shall be specified on the contract drawings.

Part 2. Materials

- 2.01 Main Components
 - 2.01.01 Main Panel (UniPanel): UL94 V-2 fire rated recycled Polypropylene, a composite of 16 SubPanels supported on 4 integral pedestals each. Height 40 mm (1.57"), Size 510 mm X 510 mm (20.08" X 20.08") square.
 - 2.01.02 Central Cap: 150 mm X 150 mm (5.91" X 5.91") square, 2.3 mm (0.09") thickness, steel, with V-shape re-enforced ribs, protection against corrosion by electro deposition.
 - 2.01.03 Flank Cap: 223 mm X 120 mm (8.78" X 4.72"), 2.0 mm (0.08") thickness, steel, re-enforced by V-shape ribs, protection against corrosion by electro deposition.
 - 2.01.04 Base Connector: 168 mm X 168 mm (6.61" X 6.61"), 15 mm (0.59") height. Construction grade polymer.
 - 2.01.05 Accessories: Standard ramps, quarter panels, wall rail, edge rail, edge trimmer, aluminum free standing skirting, access holes with grommets, as indicated on the contract drawings.
 - 2.01.06 Sound Attenuation Blanket: 2 mm thickness, rigid foam roll, 1 meter (3.3 feet) in width.
- 2.02 Recycle
 - 2.02.01 All main components, including Main Panel (UniPanel), Central Cap, Flank Cap and Base Connector, shall be recyclable

Part 3. Products

3.01 Manufacturer: Netfloor, Inc.

3.02 System: Netfloor Cable Management Flooring System CA-400R

Part 4. Delivery

4.01 All components delivered to job sites shall be in original, unopened package labeled with manufacturer's name and packing descriptions.

4.02 All flooring components should be supplied by the Manufacturer. Accessories, when supplied by sources other than the Manufacturer, should be approved by the manufacturer to ensure compatibility and integration.

4.03 General contractor or owner shall provide secure storage and holding area. Component packages shall be distributed evenly to avoid over loading the sub-floor and to accommodate installation locations.

Part 5. Job Site Conditions

5.01 Installation shall not be conducted if in-door temperature of the job site falls lower than 5 degree centigrade (40° F)

5.02 Sub-floor of the job site shall be generally level, elevation shall not vary more than 1 cm (3/8 inch) within 1 meter (3.3 feet)

5.03 Before installing the Sound Attenuation Blanket, all cracks, holes, dents and depressions on the sub-floor shall be patched.

5.04 Non-toxic tacky adhesive shall be applied evenly or 15 cm (6") width strip every 1 meter (3.3 feet) before install the Sound Attenuation Blanket. Adhesive must be tested in accordance with current EPA methods and supported by test documentation.

5.05 It is not necessary to remove old commercial-rated flooring, such as sheet vinyl without foam back, PVC tile, low loop pile carpet, or modular carpet. Before installing the main components, the old floor shall be thoroughly vacuumed and cleaned, and generally made free of dust and foreign debris.

Part 6. Quality

6.01 The Cable Management System shall meet NFPA 253 Class 1 fire safety rating, tested in accordance with ASTM E-648: "Critical Radiant Flux of Flooring Covering Systems".

6.02 The Cable Management System shall meet class 2 classification, tested in accordance with BS 476: Part 7: "Method for classification of the surface spread of flame of products".

6.03 Method for testing Concentrated Load and Uniform Load shall be per ASTM E-196: "Standard Practice for Gravity Load Testing of floors and flat roofs", as recognized under Federal, State and Municipal Building Codes.

6.04 All tests shall be conducted by independent testing laboratory regularly.

Part 7. Performance Requirements

7.01 Structural Performance: The Cable Management System shall perform as indicated below when tested in accordance with ASTM-196 at 2" plate:

Concentration Load: Shall be greater than 300 kg (660 LB) at less than 2.5 mm depression.

Concentration Ultimate Load: Shall be greater than 600 kg (1,320)

Uniform Load: Uniform ultimate load shall be greater than 150 psi

Part 8. Installation & Inspection

- 8.01 8.01 The system shall be installed in accordance with manufacturer’s guidelines and installation manual.
- 8.02 Before installation, any irregular sub-floor condition such as dampness, leaks, and indentation that would affect quality of the finished floorings, shall be removed or patched.
- 8.03 Sub-floor shall be level within +/- 1 cm (3/8”) over 1 meter (3.3 feet)

Part 9. Cleaning and Maintenance

- 9.01 Cable trenches of the system and cavity under the Main Panel will be vacuum-cleaned.
- 9.02 Electrical contractor shall connect the System to building ground.
- 9.03 Following maintenance materials will be provided by the manufacturer:
 - Main Panels
 - Central Caps and Flank Caps for cable trenches.
 - Base Connectors
 - Full range of accessories of the system.

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