Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including MasterFormat, SectionFormat, and PageFormat, as described in The CSI Construction Specifications Practice Guide.

This section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all “Specifier Notes” after editing this section.

Section numbers are from MasterFormat 2012 Update.

SECTION 13 18 19

PROTECTIVE ICE SURFACE COVERS

Specifier Notes: This section covers Covermaster Inc. “Terracover Ice®” protective ice surface covers for ice rinks. By covering and protecting the ice with “Terracover Ice”, the ice rink can be used for other types of events without damaging or removing the ice. Consult Covermaster Inc. for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Protective ice surface covers for ice rinks.

1.2 RELATED REQUIREMENTS

Specifier Notes: Edit the following list of related sections as necessary. Limit the list to sections with specific information that the reader might expect to find in this section, but is specified elsewhere.

A. Section 13 18 13 – Ice Rink Floor Systems.
1.3 REFERENCE STANDARDS

Specifier Notes: List standards referenced in this section, complete with designations and titles. Delete standards not included in the edited section. Including a standard in this list does not require compliance with that standard.


1.4 SUBMITTALS

Specifier Notes: Edit submittal requirements as necessary. Delete submittals not required.

A. Comply with Section 01 33 00 – Submittal Procedures.

B. Product Data: Submit manufacturer’s product data, including installation instructions.

C. Samples: Submit manufacturer’s sample of panels.
   1. Include:
      a. Camlock panel connector.
      b. Exposed end showing insulation component.
      c. Top surface pattern.

D. Manufacturer’s Certification: Submit manufacturer’s certification that materials comply with specified requirements and are suitable for intended application.

E. Manufacturer’s Project References: Submit manufacturer’s list of successfully completed protective ice surface cover projects, including project name and location, and type and quantity of protective ice surface covers furnished.

F. Installation and Maintenance Data:
   1. Submit manufacturer’s installation and maintenance manual for protective ice surface covers.
   2. Provide detailed information required for Owner to properly install, remove, store, clean, and maintain protective ice surface covers.

G. Warranty Documentation: Submit manufacturer’s standard warranty.

H. Maintenance Materials: Submit manufacturer’s description of maintenance materials.
   1. Spare Parts:
      a. Replacement camlock panel connectors, 100.
   2. Extra Stock Materials:
      a. Plastic welding rod, 7 bundles.
      b. Plastic edge strips, 4 coils.
3. Tools:
   b. Hot-air welding gun, 1.
   c. Triangular nozzle for hot-air welding gun, 1.

1.5 QUALITY ASSURANCE

A. Manufacturer’s Qualifications: Manufacturer regularly engaged, for past 10 years, in manufacture of protective ice surface covers of similar type to that specified.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Delivery Requirements:
1. Panels: Deliver to location designated by Owner.
2. Materials Other Than Panels: Deliver to location designated by Owner in manufacturer’s original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
3. Owner will unload shipping containers.

B. Storage and Handling Requirements:
1. Store and handle materials in accordance with manufacturer’s instructions.
2. Keep materials in manufacturer’s original, unopened containers and packaging until installation.
3. Store protective ice surface cover at location designated by Owner.

1.7 WARRANTY

A. Warranty Period:
1. Panels: 10 years.
2. Camlock Panel Connectors: Lifetime.

PART 2 PRODUCTS

2.1 MANUFACTURER


B. Substitutions: Not permitted.

2.2 PROTECTIVE ICE SURFACE COVERS

A. Protective Ice Surface Covers for Ice Rinks: “Terracover Ice”.
1. Each Solid Panel:
   a. Dimensions, Minimum Size in 1 Continuous Panel: 6’-7” by 6’-7” (2 m by 2 m).
   b. Thickness: 1.34 inches (34 mm).
   c. Surface Area: 43.34 sq ft (4 m²).
   d. Weight: 79 lbs (36 kg).
e. Unit Weight: 1.84 psf (9 kg/m²).

2. Number of Panels for 85-ft by 200-ft Ice Rink: 400 maximum.

3. Material:
   a. Twin-sheet thermoforming, using 0.16-inch (4-mm), virgin, high-density polyethylene (HDPE) sheet.
      1) R-Value: 4.1 minimum.
   c. Non-porous.

4. Temperature Range: Minus 4 degrees F to 113 degrees F (minus 20 degrees C to 45 degrees C).

5. Loading:
   a. Point Load: 220 psi (100 kg/25 mm²).
   b. Spread Load: 11,000 lbs per 6 sq in (5,000 kg/15 cm²).

6. Top Surface: Integral, non-slip, raised-chevron pattern.

7. Camlock Panel-to-Panel Connection System:
   a. Each panel locks securely to each adjacent panel with 8, rotating, plastic, semi-circular, hook-shaped, camlock panel connectors.
   b. Panels slide together on ice, camlocks are turned, and panels are locked into place to prevent vertical and lateral movement between panels.

8. Loop-Shape Panel-to-Panel Connection System: Not acceptable.
   a. Outward loop shapes on 2 sides of each panel with recessed receptacles for hooks underneath panel on opposite 2 sides.

9. Overlap: Panels overlap 1/2 inch (13 mm) to create seamless flat floor to prevent liquid spills migrating to ice surface below.

10. Expansion and Contraction: To compensate for difference in ice and ambient air temperatures, design panels to allow for expansion and contraction underneath panel surface, eliminating need to shim panels after 12 to 24 hours due to contraction.

11. Flammability:
   a. ASTM D 2859: Passed.
   b. ASTM D 4986: Passed.

12. Storage Volume: 2,700 cu ft (45 feet long by 7 feet wide by 8.5 feet high).

Specifier Notes: The standard color is grey. Consult Covermaster Inc. for availability of custom colors.


2.3 ACCESSORIES

Specifier Notes: Consult Covermaster Inc. for more information regarding accessories.

A. Access Ramps:
   1. Steel.
   2. ADA compliant.

B. Storage and Transportation Carts:
   1. Steel construction.
   2. Stackable.
3. Cart Capacity: 35 to 40 panels.
4. Hold All Panels for 85-ft by 200-ft Ice Rink: 12 carts.

C. Spare Parts:
   1. Replacement camlock panel connectors.

D. Extra Stock Materials:
   1. Plastic Welding Rod: Used for seaming plastic edge strips to cut edges of panels.

E. Tools:
   2. Hot-Air Welding Gun with Triangular Tip: Used for welding plastic edge strips to cut panel edges to seal panel edges and ensure strength and integrity of panels.

PART 3 EXECUTION

3.1 INSTALLATION

A. Owner’s personnel will install protective ice surface cover on ice rink in accordance with manufacturer’s instructions.

B. Manufacturer’s representative shall visit ice rink to provide the following:
   1. Instruction and training of Owner’s personnel for installation and removal of protective ice surface cover on ice rink.
   2. Supervision of Owner’s personnel for initial cutting and fitting of protective ice surface cover panels to fit ice rink dasher boards.
   3. Supervision of Owner’s personnel for welding edge strips to cut panel edges with provided hot-air welding gun to seal panel edges and ensure strength and integrity of panels.

C. Owner’s personnel will number each panel in accordance with manufacturer’s instructions so they have a unique position on ice rink and can be easily identified during installation.

END OF SECTION