

SNOW MELT HEATING PANELS

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes the requirements for furnishing all Snow Melt Heating Panels.
- B. Related Sections:
 - Section 06610 – Reinforced Modular Polymer Composite Panels

1.2 SUBMITTALS

- A. Manufacturer's Data: The Contractor shall submit copies in accordance with SECTION 01330 – SUBMITTAL PROCEDURES of the manufacturer's specifications, data and instructions for the manufactured materials and products.
- B. Shop Drawings: The Manufacturer shall prepare shop drawings for submittal in accordance with SECTION 01330 – SUBMITTAL PROCEDURES.
 - 1. Snow Melt Heating Panels:
 - a. Panel dimensions.
 - b. Locations and details of anchorage devices.
 - c. Electrical drawings detailing wiring types and layout, heater models and locations, connector types and locations and control and distribution panel components.
- C. Manufacturer's Sample Warranty
- D. Maintenance Data: Include operation and maintenance manual.

1.3 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Firm experienced in producing Snow Melt Heating Panels similar to those indicated for this project and with a record of successful in-service performance as well as sufficient production capacity to produce required units without delaying the work.
- B. Source Limitations: Obtain products from a single manufacturer.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Retain panels in factory applied shipping materials until ready for installation.
- B. Retain caps on cable ends and connectors until connection is ready to be made.

1.5 WARRANTY

- A. Guarantee for no less than ten (10) years from the date of installation against manufacturer defects. Any such panel that fails during the stipulated guarantee period shall be replaced or repaired at no additional cost to the owner.

PART 2 PRODUCTS

2.1 MANUFACTURERS

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- A. Available Manufacturers for the Snow Melt Heating Panel System: Subject to compliance with requirements, fabricators offering products that may be incorporated in the work include the following:
 - 1. Nexatherm Heating Panel Systems as fabricated by Engineered Plastics, Inc., 300 International Drive, Suite 100, Williamsville, NY 14221 800-682-2525
- B. Requests for substitutions will be considered, provided substitute products and methods of execution are submitted at least 15 days prior to bid closing date. Requests shall include product description and test results meeting design criteria.

2.2 SNOW MELT HEATING PANEL SYSTEM

- A. Internal replaceable heating panels are to be 240V/277V single or 3 phase. Other voltages available.
- B. Heater wattage to be determined by owner or according to ASHRAE standards.
- C. Heating panels are to be controlled automatically through included snow, humidity, ambient and panel temperature sensors and remotely through web browser. Capable of cycling through zones to reduce power requirements.
- D. Heating panel controls to include customizable access to proprietary web based program. The control program will be able to control additional locations in the future from the same platform. The program will be separately optimized for both mobile and desktop screens.
- E. Cameras are included to cover entire heated area and viewable through the control program, not accessed separately.
- F. Heating panels are to be encased top and bottom in composite panel systems impervious to extreme exterior environments.
- G. Heating panels are to be replaceable in the field by unscrewing the top composite surface and disconnecting the twist lock cable connectors.
- H. All exposed fasteners are to be stainless steel.
- I. Heating panels shall meet the following criteria:

1.	Maximum Temperature:	158 °F
2.	Minimum Temperature:	- 40 °F
3.	Dielectric Strength:	≥ 20 kV
4.	Insulation Resistance:	≥ 20 MΩ
5.	Waterproof Rating:	IP67
6.	Water Absorption ASTM D570	≤ 0.8 %
- J. Entire snow melting system to meet all applicable electrical codes.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Snow Melt Heating Panels to be factory installed in composite structures such as platform, bridge and ramp panels and stairs.

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- B. Connect Snow Melt Heating Panel cables with twist lock connectors to supplied wiring harnesses as indicated on manufacturer's shop drawings. Connect Snow Melt Heating Panel cables with bare wires into junction boxes as indicated on manufacturer's shop drawings.

END OF SECTION