



Manufacturers of

Walk-in Coolers, Freezers & Refrigerated Warehouses

Jan-11

ARCHITECTURAL SPECIFICATIONS

GENERAL: Walk-ins are designed and constructed of prefab modular panels that are insulated with Dow's Panel Core® Blue Board® Extruded Polystyrene (XPS) rigid foam, with a unique 50-Year Thermal Warranty. Each panel is designed to ensure ease of installation, long term panel integrity, reliability and high insulation efficiency.

- AmeriKooler's manufacturing process uses a proprietary network of CAD-CAM robotic machines and custom software to ensure consistent and precise quality.
- All panels are manufactured using the same Extruded Polystyrene (XPS) rigid foam insulation on its male and female profiles for high insulation efficiency and accurate alignment during installation.
 - Both interior and exterior metal skins are laminated to the insulation using "laminating adhesive" code approved and certified by the International Code Counsel Evaluation Services (U.S. ICC-ES). It is applied by a computer-controlled adhesive applicator machine and under a tightly controlled continuous process. The result is a panel of exceptional structural strength and durability.
- All panels are four (4) inches thick and provide a superior insulating value of R-32.4 for freezers and R-28.8 for coolers, which exceed federal requirements of the U.S. Energy Independence and Security Act of 2007 (EISA).
- Cam-locking fasteners are made of high strength non-corrosive PVC. They are insulated, with access port of no wider than 3/8" diameter. Spacing not to exceed 37" to ensure a strong and air tight seal for maximum energy efficiency.
- Panel gaskets are applied to the "tongue" sides of the panel and are continuous. Amerikooler's proprietary gasket design is a factory installed 1/2 inch x 3/16 inch thick closed-cell, flexible vinyl sponge (impermeable to stains, grease, water and mildew), that ensures an air-tight seal.
- Panel Finishes on interior and exterior to be 26 gauge corrosion resistant stucco embossed Acrylum (Acrylic Coated Galvalume). Floors will include a smooth aluminum interior surface.



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- Insulation: Dow's four (4) inches thick, STYROFOAM™ Brand Panel Core® Blue Board® Extruded Polystyrene (XPS) rigid foam insulation. DOW'S proprietary extrusion process enables precise control of various parameters such as density, compressive strength, cell size and cell orientation. It is a closed-cell foam insulation with Hydrophobic characteristics and is void free.

These characteristics prevent the insulation from absorbing water that avoids future swelling and keeps the R-value from decreasing for long-term performance. Testing of Insulation samples shall be in accordance with ASTM Test Method such as C518, C272, C236, E 84, E96, D2126. Typical Physical Properties Values are based upon most recent product quality audit data. Insulation foam core shall have a flame spread rating of 15 or less and average smoke rating of less than 175.

DOOR CONSTRUCTION: Door sections manufactured at Amerikooler are factory tested to ensure proper fit, performance and alignment. All door features AmeriKooler proprietary in-fitting stepped profile of two (2) inches design that serves as a barrier to air flow and is an exceptional thermal barrier.

- Each walk-in compartment is equipped with a standard 36" x 76" clear opening. The door is self-closing, flush mounted, in-fitting and constructed with heavy duty thermo break PVC extrusions on door and frame, which is permanently laminated to extruded polystyrene (XPS) rigid foam.
- Doors are available in many sizes with left or right side hinges and includes: one cam-lift spring assisted self-closing hinge and one cam-lift hinge. Also included is one spring actuated door closer, one pull-handle with key/padlock feature and inside safety release. The door is pre-hung on a 47 inch wide frame panel which is equipped with magnetic gasket, dial thermometers, vapor-proof light fixture, switch with exterior pilot indicator light, flexible double blade "sweep" bottom wiper, thermoplastic magnetic core gasket and stainless steel magnetic trim. Freezer door is equipped with a mounted and wired replaceable perimeter braided heater wire and heated pressure relief port.



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- Door frame panel is completely pre-wired with concealed PVC conduit. 115/60/1 electrical field wired to surface mounted on the interior frame of the vapor proof light fixture. Each door panel is completed with a stainless steel sill plate and reinforced with a U-channel aluminum electrical chase extrusion.
- Optional Accessories:
 - A chrome brush finish on hinges and pull handles is standard. A polished chrome finish is also available.
 - Vision panels, when specified, are 12" x 12" or 12" x 24". Heated, double pane glass for Coolers and heated glass and frame for Freezers.
 - Kick plates are made of aluminum diamond tread plate and placed on door and frame. If requested, on both the exterior and/or interior
 - Internal and external ramps are 24" deep with varying widths and have an external surface of aluminum diamond tread plate.
 - Stainless steel locking bar with inside safety release
 - Fluorescent 48" moisture proof light fixture for low temperature. Uses two T-5 light bulbs, 120 volt. (Light bulbs supplied by others)
 - Fluorescent 48" moisture proof LED light fixture for low temperature with 2 light bulbs 11810L212488
 - 1901 motion sensor for 48" LED light fixture. Low bay and high bay motion sensor lens available.

FLOOR CONSTRUCTION: Floor panels shall be placed on a concrete pad and leveled. Floor panels (when supplied) are similar in construction to the wall and ceiling panels, but have a 3/8" cove NSF radius at all interior floor-to-wall junctions to facilitate cleaning. Floor panels are made to withstand uniformly distributed floor load of up to 600 lbs per square foot and are intended for walk-in traffic. The interior metal is smooth aluminum with backer for a strong structural laminated floor panel.

- Floorless walk-ins are supplied with Amerikooler's proprietary NSF vinyl floor screeds that secure wall panels to floor and works as a thermal barrier at the finished floor level.



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OUTDOOR WALK-INS: All walk-ins installed outdoors require a weather protection kit. It includes a one piece (when possible) single-ply roll of white membrane roof material which requires no gluing to the top of the walk-in ceiling panels.

- PVC termination bar for flushing to membrane roof materials to the side of the walk-in wall panels are provided.
- Termination bar is secured to wall panels with self drilling and self tapping TEK screws. Doors' rain hoods and outdoor weather proof on/off light switch are included on installation where the door panels are exposed to the outdoor weather.
- Largest single ceiling panel available for outdoor walk-ins is 12'-0". If ceiling panels' length surpasses 12'-0", a steel beam and columns for ceiling support must be provided and installed (by others).
- Sloped roof package, when specified, shall be provided with a ¼" to 1" slope of EPS foam. The membrane roof shall be increased in size in order to provide additional material required to cover necessary profile.

INDOOR PANEL SIZES:

Ceilings: Unsupported, single-span up to 12' -0" long

Floors: Over a leveled floor, up to 12' -0" long

Walls: Unsupported, single-span panel up to 30'-0" high

Standard heights O.D.: With or without floor are 7'-7" and 8'-7"

APPROVALS: Walk-in construction is approved by the National Sanitation Foundation (NSF) and Underwriters Laboratories (UL) shall have the NSF and UL seal on the door section. Walk-in panels shall have a UL flame spread rating of 25. The door section is UL listed for electrical safety. Dow's extruded rigid foam insulation shall have a UL flame spread rating of 15 and a smoke developed rating of 165.



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Other approvals include:

- UL (Underwriter’s Laboratory) File No. R18276
- City of Houston, TX Public Works and Engineering Reg. No. 694
- State of Oregon Building Code Division Reg. No. 213PFL
- New York City, NY: MEA 113-87-M
- EISA Compliant – United States of America Energy Independence and Security Act of 2007

DOW’S UNIQUE 50-YEAR THERMAL LIMITED WARRANTY: The Dow Chemical Company (Dow) warrants for a period of 50 years, commencing from the date of manufacture printed on the product, that the insulation’s actual thermal resistance for STYROFOAM™ Brand Panel Core® XPS Blue Board® will not vary by more than ten percent from its published R-value. Dow’s next-generation STYROFOAM™ XPS insulation formulation enables Dow to maintain prior physical attributes while increasing long-term, sustainable R-value retention. Visit Dow’s website (www.dowbuildingsolutions.com) for more details.

“Fresh R-value”, ASTM C518 at 4” thick:

- At 20°F, °F · ft² · h/BTU = 32.4
- At 55°F, °F · ft² · h/BTU = 28.8

These values exceed the requirements of United States Energy Independence and Security Act of 2007 (EISA).

AMERIKOOLER’S 10-YEAR LIMITED PANEL WARRANTY:

AmeriKooler shall warrant that any part of the panels it supplies (except the refrigeration system, its related accessories and door hardware) is free from defects in material and workmanship under normal use and service for a period of 10 years from the date of installation (but in no event shall the warranty be in for more than 10 years



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and 4 months from the date the panels were first shipped by Amerikooler). Please visit 10-Year limited Panel Warranty at AmeriKooler's website at www.amerikooler.com.

Product improvement is a continuing commitment for AmeriKooler, Inc. Our constant effort achieved through research and development requires that we reserve the right to modify and or change specifications without notice.