THERMOMARK™ 530

SECTIONAL DOOR SYSTEMS

PREMIUM 3" THICK POLYURETHANE DOOR DELIVERS AN OPTIMUM RETURN ON INVESTMENT

ThermoMark™ 530 is the strongest and most thermally efficient door in our product line-up. Designed to withstand tough weather conditions and the preferred choice for larger openings.

Wayne Dalton ThermoMark insulated doors help minimize energy costs and provide year-round comfort and security for your building. Hot-dipped galvanized steel and rugged construction will give years of solid performance for the most demanding conditions.

R-VALUE = 26
U-VALUE = .038
U-FACTOR = .14
AIR LEAKAGE RATING = .09

- STANDARD SIZES UP TO 40' WIDE AND UP TO 24' HIGH.
- EXTRA RUGGED AND DURABLE

SECTIONAL DOOR SYSTEMS

THERMOMARK™ 530

The ThermoMark 530 is designed to deliver optimal performance in commercial and industrial applications where climate control, durability and less maintenance are the primary concerns. These premium 3" thick foamed-in-place polyurethane insulated doors have a calculated r-value* of 26, and installed U-Factor of .14 Btu/hr ∗ft^2∗F° (.80 W/m^2)§, as well as a low air infiltration rating of .09 cfm/sq ft. at 15 mph.+ A sound transmission class of 22 minimizes noise transfer through and around the door.

Materials & Construction

- Hot-dipped galvanized steel construction that is pre-painted prior to manufacturing with a two-coat system of polyester paint with a finished coat (includes primer).
- Inside and outside skins are roll-formed and separated with a 1-3/4" true PVC thermal break to eliminate heat or cold transfer from front to back steel skins.
- Continuous steel strips allow hinges to be placed anywhere along the section and provides the ability for sections to be inventoried and cut down to size.
- Bottom weatherseal is a two-piece bulb type astragal that is specially designed to include one interior dual durometer pvc bulb and one exterior EPDM++ bulb. (outer EPDM seal is optional).
- Section end stiles are 14 or 16 gauge hot-dipped galvanized steel and feature a PVC thermal break to eliminate heat or cold transfer from front to back steel skins.

*Wayne Dalton uses a calculated door section R-value for insulated doors.
§U-Factor: lower number delivers better performance for an installed door.
+with optional jamb seal
++EPDM - ethylene propylene diene monomer rubber. Used in the automotive industry for its superior durability.

3" thick foamed-in-place polyurethane sections feature continuous steel strips for flexibility in hinge placement

Dual barrier tongue and groove joint profile (patents pending) creates a virtually impenetrable path for air leakage in between sections. Patents pending.

Enhanced thermal performance jamb seal (patent pending) (optional) combines a longer flapper seal and bulb seal for superior perimeter protection.

Bottom weatherseal with rigid PVC retainer and dual durometer PVC bulb seal locks out air and water leakage through the bottom section. Optional outer EPDM bulb seal provides additional protection.

PVC thermal break on end stiles limits the transfer of temperature.

Operation Options

- Chain Hoist Operation
- Motor Operation

Standard performance feaures

- Factory installed top weatherseal
- Continuous wall angle standard

Safety Options

- Sensing Edges
- Photo Eyes
- Cable Failure Device

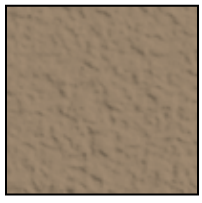
Special Application Options

- Special Track Designs
- High Cycle Springs
- High Usage Components
- Advanced Thermal Performance Clip-on Jamb Seal (patent pending)

Color Options

White Embossed Stucco Finish

Almond Embossed Stucco Finish



Taupe Embossed Stucco Finish

Brown Embossed Stucco Finish

Window and Glass Options

Multiwall Polycarbonate Lites

Large lites - 25" w x 13" h available with insulated glass, tempered glass, or multi-wall polycarbonate glazing (brown, white or clear)†. Black frame is standard. Color matched frames are available.

STANDARD SIZES UP TO:
40' WIDE & 24' HIGH
CALL FOR ADDITIONAL SIZES

ENERGY EFFICIENCY VALUES:
calculated r-value: 26
calculated u-value: .038
installed u-factor: .14
air leakage rating: .09
STC (sound transmission rating): 22

Wayne Dalton Certified windSAFE

MEET OR EXCEED
ANSI/DASMA 102-2003
IN ACCORDANCE WITH
ASTM E-330-70.

BEST APPLICATIONS:
Where thermal performance and rugged maximum durability are key.

*U-factor is the thermal rating for an installed door. Lower rating delivers better performance.

General Operating Clearances

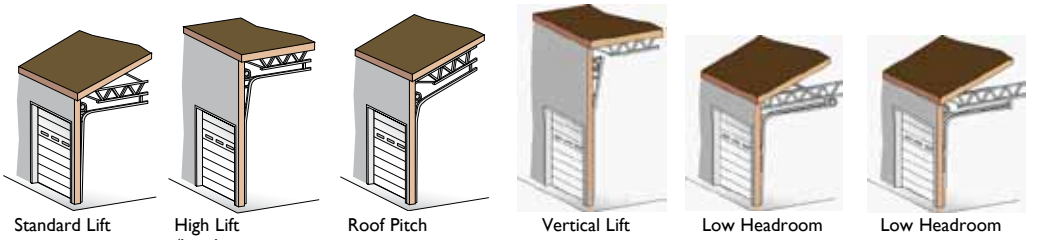
Type	Headroom		Sideroom		Depth Into Room	Center Line of Springs	
	2" track	3" track	2" track	3" track	2" & 3" track	2" track	3" track
Standard Lift Manual 12"R	13-17"	NA	4½"	5½"	Opening Height +18"	Opening Height +12"	NA
Standard Lift Manual 15"R	15-20"	16-21"				Opening Height +13"	Opening Height +14"
Standard Lift Motor Oper. 12"R	15-20"	NA			Opening Height +66"	Opening Height +12"	NA
Standard Lift Motor Oper. 15"R	15-20"	18-24"				Opening Height +13"	Opening Height +14"
High Lift Manual	Door Height +12"				Opening Height – Lift +30"	Opening Height +Lift +6½"	Opening Height +Lift +7½"
High Lift Motor Oper.			24" One Side				
Vertical Lift Manual 12"R	Door Height +20"		4½"	5½"	Opening Height +18"	Double Door Height +13"	
Vertical Lift Motor Oper. 12"R			24" One Side				
Low Headroom Manual	6-15"	6-15"	6"	9"	Opening Height +20" - 26"	Does Not Apply	
Low Headroom Motor Oper.	9-17"	9-17"			Opening Height +66"		

Panel/Section Selection Guide

Door Section and Lite Selection			Door Height and Section Selection	
Door Width	No. Panels	Max. No. Windows	Door Height	No. Sections
8'2" to 9'2"	2	2	Up thru 8'1"	4
9'3" to 12'2"	3	3	8'2" thru 10'1"	5
12'3" to 16'2"	4	4	10'2" thru 12'1"	6
16'3" to 19'2"	5	5	12'2" thru 14'1"	7
19'3" to 24'2"	6	6	14'2" thru 16'1"	8
24'3" to 26'2"	7	7	16'2" thru 20'1"	9
26'3" to 28'2"	7	7	18'2" thru 20'1"	10
Over 28'3"	7	7	20'2" thru 22'2"	11
			22'2" thru 24'4"	12

NOTES:
1. For low headroom, springs must be rear mount to achieve minimum headroom listed. For mount torsion headroom depends on drum size, and varies over the range listed. See approval drawing.
2. Side-room of 8" required, one side, for doors with chain hoist.
3. Headroom depends on drum size, and varies over the range listed. See approval drawing.

Track Selection Guide



Standard Lift

High Lift (break-away is standard, straight incline is available)

Roof Pitch (standard or high lift)

Vertical Lift

Low Headroom (rear mount torsion)

Low Headroom (front mount torsion)

THERMOMARK™ 530

Note to specifiers: Words in brackets indicate frequently specified and highly recommended options.

PART I – GENERAL

1.01 Section Includes
- A. Sectional overhead doors [manually] [motor]operated with accessories and components.

1.02 Related Work
- A. Opening preparation, miscellaneous or structural steel work, access panels finish or field painting are in the scope of work of other trades and divisions of these specifications.

1.03 Reference Standards
- A. ANSI/DASMA 102 – American National Standards Institute [A216.1] Specifications for sectional overhead doors published by Door & Access Systems Manufacturers Association International in bulletin Standard 102-2004.
- B. ASTM A123 – Zinc [hot-dipped galvanized] coatings on iron and steel products.
- C. ASTM A216 – Specifications for sectional overhead type doors.
- D. ASTM A229 – Steel wire, oil-tempered for mechanical springs.
- E. ASTM A-653-94 – Steel sheet, zinc-coated [galvanized] by the hot-dipped process, commercial quality.
- F. ASTM D1929 – Ignition temperature test to determine flash and ignition temperature of foamed plastics.
- G. ASTM E84-91A – Tunnel test for flame spread and smoke developed index.
- H. ASTM E330 – Structural performance of exterior windows, curtain walls, and doors by uniform static air pressure difference.
- I. ASTM E413-87 – Sound transmission class. Acoustical performance value = 22. ASTM E1332-90 – Outdoor-indoor. transmission class. Acoustical performance value = 22.
- K. ASTM E283-91 – (Air infiltration = .09 CFM/FT^2, 15 MPH).

1.04 Quality Assurance
- A. Sectional overhead doors and all accessories and components required for complete and secure installations shall be manufactured as a system from one manufacturer.
- B. Sectional overhead doors shall be tested and labeled certifying compliance with ASTM D1929 and ASTM E84-91A standards.

1.05 Systems Description
- A. Sectional Overhead Door: Type: ThermoMark 530.
- B. Mounting: Continuous angle mounting for [steel] [wood] jambs.
- C. Operation: [manual push-up] [chain hoist] [motor] [motor with chain hoist].
- D. Material: Galvanized steel with polyester finish paint.
- E. Insulation: Polyurethane.

1.06 Submittals
- A. Shop Drawings: Clearly indicate the following:
  1. Design and installation details to withstand standard wind load.
  2. All details required for complete operation and installation.
  3. Hardware locations.
  4. Type of metal and finish for door sections.
  5. Finish for miscellaneous components and accessories.
- B. Product Data: Indicating manufacturer's product data, and installation instructions.

1.07 Delivery, Handling, Storage
- A. Deliver products in manufacturer's original containers, dry, undamaged, seals and labels intact.
- B. Store and protect products in accordance with manufacturer's recommendations.

1.08 Warranty
- A. Provide manufacturer's standard TEN YEAR warranty against separation/degradation of the polyurethane foam from the steel skin of the panel. Standard manufacturer's TEN YEAR warranty against cracking, splitting or deterioration due to rust-through. TEN YEARS on insulation value.

PART II – PRODUCTS

2.01 Manufacturer
- A. Wayne Dalton or approved equal ThermoMark 530 insulated sectional overhead doors of steel construction complete as specified in this section and as manufactured by Wayne Dalton., Mt. Hope, Ohio.

2.02 Materials
- A. Door Sections: Shall be of steel/polyurethane/steel sandwich type construction with thermal break and calculated materials "R"- value of [26], in accordance with industry guidelines.
  1. Exterior Skin: Structural quality, hot-dipped galvanized steel, 27 gauge, factory finished with baked-on polyester primer and [white] [brown] [almond] [taupe] polyester finish coats with [non-repeating embossed stucco texture weather-stripping].
  2. Interior Skin: Structural quality 27 gauge, hot-dipped, galvanized steel, factory finished with a polyester primer and white finish coat.
  3. Ends of section shall be sealed with 16 or 14 gauge hot-dipped galvanized steel full-height end caps with thermal break preventing heat or cold transfer.
  4. Insulation: Cavity shall be filled with foamed-in-place CFC and HCFC free polyurethane core. Sections include an integral thermal break.
  5. Insulated sections shall be tested by an I.C.B.O. certified laboratory in accordance with ASTM E-84-91A and shall achieve a Flamespread Index of 10 or less, and a Smoke Developed Index of 210 or less.
  6. Insulation material shall be tested by an I.C.B.O. certified laboratory in accordance with ASTM D-1929 and shall achieve a minimum Flash Ignition temperature of 734 degrees F, and a minimum Self Ignition temperature of 950 degrees F.
  7. Insulated sections shall be tested and meet all requirements of the UBC 17-5 corner burn.
- B. Track: Track design shall be [standard lift] [high lift] [vertical lift] [low headroom] [roof pitch]. Vertical mounting angles shall be hot-dipped galvanized. Track size shall be [2"] [3"]. Vertical track shall be graduated to provide wedge type weathertight closing with continuous angle mounting for [steel] [wood] jambs, and shall be fully adjustable to seal door at jambs. Horizontal track shall be reinforced with continuous angle of adequate length and gauge to minimize deflection.

Note: Horizontal track applies to standard lift, high lift, low headroom and follow-the-roof designs only.
- C. Hardware: Hinge and Roller Assembly:
  1. Hinges and brackets shall be made from hot-dipped, galvanized steel.
  2. Track rollers shall be case-hardened inner steel races with ball bearing [2"] [3"] rollers.
  3. Continuous steel strips running the width of each section at top and bottom accommodate hinge attachment as well as allow for field cut down capabilities.
- D. Counterbalance:
  1. Springs shall be torsion type, low-stress, helical wound, oil-tempered spring wire to provide minimum [10,000 standard] [25,000] [50,000] [100,000] cycles of use, on continuous steel [solid] shafts.
  2. Spring fittings and drums made of die cast, high strength aluminum.
  3. Pre-formed galvanized steel aircraft cable shall provide a minimum of a 5:1 safety factor.

2.03 Operation
- A. Operation shall be [manual push-up] [chain hoist] [motor] [motor with chain hoist].

Note: Manufacturer does not recommend chain hoist or jackshaft operation with the following track systems:
- 15" radius standard lift with roof pitch < 2:12
- Low headroom track
- High lift < 24" with no roof pitch

Special chain hoist assemblies (using a trolley rail) are available for the above track systems

2.04 Locks
- A. Locks shall engage the right-hand vertical track and utilize [an interior side lock].

2.05 Weatherstripping
- A. Dual Barrier bulb: EPDM exterior bulb and dual diameter PVC interior bulb with PVC retainer at bottom section. (outer EPDM bulb seal is optional).
- B. Patent pending Enhanced Thermal Protection Jamb seals (optional).
- C. Factory installed Flexible Header Seal.

2.06 Glazing
- A. Optional. 25" w x 13" h lites with [1/2" DSB insulated], [1/2" insulated tempered glass] [multi-wall polycarbonated]. Black frames standard optional colors include [white, brown, almond, taupe].

PART III – EXECUTION

3.01 Installation
- A. General:
  1. Install doors in accordance with manufacturer's instructions and standards. Installation shall be by an authorized Wayne Dalton representative.
  2. Verify that existing conditions are ready to receive sectional overhead door work.
  3. Beginning of sectional overhead door work means acceptance of existing conditions.
- B. Install door complete with necessary hardware, jamb and head mold strips, anchors, inserts, hangers, and equipment supports in accordance with final shop drawings, manufacturer's instructions, and as specified herein.
- C. Fit, align and adjust sectional overhead door assemblies level and plumb for smooth operation.
- D. Upon completion of final installation, lubricate, test and adjust doors to operate easily, free from warp, twist or distortion and fitting for entire perimeter.

Note: Architect may consider providing a schedule when more than one sectional overhead door or opening type is required.

3.02 Materials (See note above.)

Specifications and technical information also available at Arcat (SpecWizard™), and McGraw Hill (Sweets.com®).

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