



1. Product Name

Commercial Sectional Doors

- TriCore™
- ThermaSeal™
- TC200
- SteelForm™
- AlumaView™
- DesignForm™
- StyleForm™

2. Manufacturer

Raynor
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3. Product Description

BASIC USE

Raynor is a leading manufacturer of commercial and residential garage doors, sectional doors and rolling doors, as well as security grilles and other accessories. Raynor products are crafted for dependable, long-lasting performance. Rugged hardware, track and springs precisely match each door's size and application. See Table 1 for a list of Raynor Commercial Sectional Door models and matching applications.

TYPES

TriCore™ Sectional Thermal Doors

Providing ultimate thermal efficiency and extreme durability, TriCore represents Raynor's best door. With expanded polystyrene insulation thermally bonded between 2 hot-dipped galvanized, rust resistant steel skins, TriCore doors are 3" (76 mm) thick and have exceptional R-values of 16.05. Steel is finished with a 2-coat, baked-on paint process. A flexible rubber flap header seal and a U-shaped vinyl bottom weatherseal limits air infiltration to reduce energy costs. A vinyl section joint seal prevents airflow between sections. RollLock mechanically interlocked thermal barrier pre-



TriCore™ Sectional Thermal Doors

vents heat loss and eliminates any metal-to-metal contact. Features specific to each TriCore model are included below:

- TriCore Optima - Ideal for applications requiring security and maximum thermal efficiency; designed for strength, durability and performance; 20 gauge exterior steel skin and rugged hardware
- TriCore Standard - Meets or exceeds daily use requirements; 25 gauge exterior steel skin; wide selection of features and options

ThermaSeal™ Sectional Thermal Doors

Both durable and energy efficient, ThermaSeal 2-sided steel doors are 100% filled with polyurethane foam insulation to deliver exceptional R-values, excellent structural integrity and maximum thermal protection. A U-shaped vinyl bottom weatherseal with an aluminum retainer and dual vinyl barriers limit air infiltration. A thermal break prevents heat loss and eliminates metal-to-metal contact between surfaces.

Features specific to each ThermalSeal model are included below:

- ThermaSeal Standard - Thickness of 1 3/4" (45 mm); R-value of 16.4; offered with the widest selection of quality features and options for the most common applications
- ThermaSeal Basic - Thickness of 1 1/2" (38 mm); R-value of 14.5; best for applications requiring thermal performance at an economical price; available with a limited selection of sizes, features and options

TC200 Thermal Sectional Doors

TC200 doors are made from high-strength,

impact-resistant steel with a thermal core of polystyrene insulation. Two-sided galvanized steel sandwich constructed door sections are 2" (51 mm) thick with R-values of 10.25. A vinyl thermal break between the interior and exterior skins prevents weather infiltration. TC200 doors have a stucco surface texture and are offered with a number of exterior colors to meet specific application requirements. Standard 24" x 8" (610 x 203 mm) oval windows are factory installed using 1/8" (3.18 mm) double strength B-grade insulated glass. Rectangular 2-piece frame windows are also available.

SteelForm™ Sectional Ribbed Doors

Versatile, reliable and durable, SteelForm doors are ideal for commercial and industrial applications. SteelForm door sections are 2" (51 mm) thick and made of hot-dipped galvanized, rust resistant steel with a baked-on finish. They are constructed with stainless steel rivets and roll-formed tongue-and-groove meeting rails for maximum structural integrity and are built to withstand wind loads to 20 psf (97.6 kg/m²). A U-shaped vinyl bottom weatherseal with an aluminum retainer reduces air infiltration.

Features specific to each SteelForm model are included below:

- SteelForm Optima - 16 gauge steel skin; provides high security in the most demanding applications
- SteelForm Standard - 20 or 24 gauge steel skin; meets or exceeds requirements of daily use; wide selection of quality features and options for the most common applications



TABLE 1 APPLICATIONS

Series, Model	Agricultural buildings	Auto dealerships	Corrosive environments	Commercial/multi-tenant	Fire station/ambulance	High cycle parking garage	High security	Large opening size
TriCore, Optima (TC-20)	Best	N/A	Good	Good	Best	N/A	Best	Best
TriCore, Standard (TC)	Best	N/A	Good	Good	Best	N/A	Good	Best
ThermaSeal, Standard	Best	N/A	Good	Best	Best	N/A	Best	Best
ThermaSeal, Basic	Good	N/A	Applicable	Best	Good	N/A	Best	Good
TC200	?	?	?	?	?	?	?	?
SteelForm, Optima	Good	N/A	N/A	Good	Good	N/A	Best	Good
SteelForm, Standard	Good	N/A	N/A	Good	Good	N/A	Good	Best
SteelForm, Basic (S-24C)	Good	N/A	N/A	Good	Good	N/A	Applicable	N/A
AlumaView, Optima (HL)	N/A	Best	Best	N/A	Best	N/A	N/A	Best
AlumaView, Standard (L)	N/A	Best	Best	N/A	Good	N/A	N/A	Good
DesignForm, Optima	N/A	N/A	N/A	N/A	Best	Best	N/A	N/A
DesignForm, Standard	N/A	N/A	N/A	N/A	Good	Best	N/A	N/A
DesignForm, Basic	N/A	N/A	N/A	N/A	Good	Applicable	N/A	N/A
StyleForm, Optima	?	?	?	?	?	?	?	?
StyleForm, Standard	?	?	?	?	?	?	?	?
StyleForm, Basic	?	?	?	?	?	?	?	?

Series, Model	Mining, pulp, paper	- Mini warehouse	Noninsulated storage	Oversize heated motorhome garage in residential application	Oversize unheated motorhome garage in residential application	Quick lube centers	Residential appearance in commercial application (heated)	Residential appearance in commercial application (unheated)
TriCore, Optima (TC-20)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TriCore, Standard (TC)	Good	N/A	Applicable	N/A	N/A	N/A	N/A	N/A
ThermaSeal, Standard	Good	N/A	Applicable	N/A	N/A	N/A	N/A	N/A
ThermaSeal, Basic	N/A	Applicable	Good	N/A	N/A	N/A	N/A	N/A
TC200	?	?	?	?	?	?	?	?
SteelForm, Optima	N/A	Good	Good	N/A	N/A	N/A	N/A	N/A
SteelForm, Standard	N/A	Best	Best	N/A	N/A	N/A	N/A	N/A
SteelForm, Basic (S-24C)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AlumaView, Optima (HL)	N/A	N/A	N/A	N/A	N/A	Best	N/A	N/A
AlumaView, Standard (L)	N/A	N/A	N/A	Best	N/A	Best	N/A	N/A
DesignForm, Optima	N/A	N/A	N/A	Good	Good	N/A	Best	Good
DesignForm, Standard	N/A	N/A	N/A	Good	Best	N/A	Good	Best
DesignForm, Basic	N/A	N/A	N/A	N/A	Best	N/A	Good	Best
StyleForm, Optima	?	?	?	?	?	?	?	?
StyleForm, Standard	?	?	?	?	?	?	?	?
StyleForm, Basic	?	?	?	?	?	?	?	?

Series, Model	Restaurant	Service station	Suburban outbuildings (heated)	Suburban outbuildings (unheated)	Thermal environments	Transit facility, truck terminal	Underground parking	Warehouse, manufacturing
TriCore, Optima (TC-20)	N/A	Best	N/A	N/A	Best	Best	Good	Best
TriCore, Standard (TC)	N/A	Best	N/A	N/A	Best	Best	Good	Best
ThermaSeal, Standard	N/A	Good	N/A	N/A	Best	Best	Applicable	Best
ThermaSeal, Basic	N/A	Good	N/A	N/A	Best	Good	Applicable	Best
TC200	?	?	?	?	?	?	?	?
SteelForm, Optima	N/A	Best	N/A	N/A	Good	Best	Good	Best
SteelForm, Standard	N/A	Good	N/A	N/A	Good	Good	Good	Good
SteelForm, Basic (S-24C)	N/A	Good	N/A	N/A	Good	Good	Good	Good
AlumaView, Optima (HL)	N/A	Best	N/A	N/A	Applicable	N/A	Applicable	Applicable
AlumaView, Standard (L)	N/A	Best	N/A	N/A	Applicable	N/A	Applicable	Applicable
DesignForm, Optima	Best	N/A	Best	Good	N/A	N/A	N/A	N/A
DesignForm, Standard	Good	N/A	Good	Best	N/A	N/A	N/A	N/A
DesignForm, Basic	Good	N/A	Good	Best	N/A	N/A	N/A	N/A
StyleForm, Optima	?	?	?	?	?	?	?	?
StyleForm, Standard	?	?	?	?	?	?	?	?
StyleForm, Basic	?	?	?	?	?	?	?	?



TABLE 2 SIZES

Series, Model	Maximum opening width	Maximum opening height	Section thickness	Exterior/interior steel thickness	End/center stile steel thickness
TriCore Optima ¹ (TC-20)	32' (9.8 m)	24' (7.3 m)	3" (76 mm)	20 gauge (0.035") 25 gauge (0.019")	14 gauge
TriCore Standard ¹ (TC)	32' (9.8 m)	24' (7.3 m)	3" (76 mm)	25 gauge (0.019") 25 gauge (0.019")	14 gauge
ThermaSeal, Standard	28' (8.5 m)	20' (6.1 m)	1 3/4" (45 mm)	25 gauge (0.019") 26 gauge (0.016")	16 gauge (0.055") minimum
ThermaSeal, Basic	16' (4.9 m)	16' (4.9 m)	1 1/2" (38 mm)	26 gauge (0.016") 26 gauge (0.016")	16 gauge (0.055") minimum
TC200	18' (5.5 m)	14' (4.3 m)	2" (51 mm)	26 gauge (0.016") 26 gauge (0.016")	18 gauge
SteelForm, Optima	24' (7.3 m)	24' (7.3 m)	2" (51 mm)	? ?	13 gauge 16 gauge
SteelForm, Standard S-10	24' (7.3 m)	32' (9.8 m)	2" (51 mm)	? ?	13 gauge 16 gauge
SteelForm, Standard S-24	24' (7.3 m)	24' (7.3 m)	2" (51 mm)	? ?	13 gauge 16 gauge
SteelForm, Basic (S-24C)	16' (4.9 m)	16' (4.9 m)	2" (51 mm)	? ?	16 gauge 16 gauge
AlumaView, Optima (HL)	24' (7.3 m)	24' (7.3 m)	2" (51 mm)	?	?
AlumaView, Standard (L)	14' (4.3 m)	14' (4.3 m)	1 1/2" (38 mm)	?	?
DesignForm, Optima	20' (6.1 m)	16' (4.9 m)	2" (51 mm)	? ?	18 gauge 19 gauge plates
DesignForm, Standard	20' (6.1 m)	16' (4.9 m)	1 3/8" (35 mm)	? ?	20 gauge 19 gauge plates
DesignForm, Basic	20' (6.1 m)	16' (4.9 m)	2" (51 mm)	?	18 gauge
StyleForm, Optima	18' (5.5 m)	14' (4.3 m)	2" (51 mm)	?	18 gauge
StyleForm, Standard	18' (5.5 m)	14' (4.3 m)	2" (51 mm)	? ?	18 gauge 18 gauge
StyleForm, Basic	14' (4.3 m)	14' (4.3 m)	2" (51 mm)	? ?	18 gauge 18 gauge

¹ Also offered in a variety of sizes to accommodate applications with large door openings. Consult Raynor for more information.

- SteelForm Basic - 24 gauge steel skin; suitable for typical applications; available with a limited selection of sizes, features and options

AlumaView™ Sectional Rail & Stile Doors
Attractive AlumaView doors are ideal for facilities that require dependable doors with maximum dependability. Doors are designed to withstand wind loads to 20 psf (97.6 kg/m²). A U-shaped vinyl bottom weatherseal with an aluminum retainer reduces air infiltration.

Door sections are clear anodized and have extruded aluminum frames. A large selection of powder coated finishes are available. Special anodized finishes are also available.

Features specific to each AlumaView model are included below:

- AlumaView Optima - 2" (51 mm) thick; large size availability; bold rail construction; panels and glass are encased in soft vinyl channels and are held in place with a snap-in retainer

- AlumaView Standard - Meets or exceeds the requirements of daily use; thickness of 1 3/4" (45 mm); streamlined rail construction; panels and glass are sealed and are held in place with a snap-in retainer

DesignForm™ Sectional Raised Panel Doors
Stylish, reliable and durable, DesignForm doors are ideal for applications requiring the look and the safety features of a residential door, and the durability and size of a commercial product. DesignForm sections are constructed from hot-dipped galvanized steel and are coated with a baked-on, fade resistant polyester finish. State-of-the-art polyurethane insulation delivers the industry's highest R-values.

Available with expanded mounting options and heavy duty commercial grade hardware, DesignForm features mixed panel designs and the Raynor Finger Protection System™. DesignForm is offered in 3 standard and



DesignForm™ Sectional Raised Panel Doors

TABLE 3 EXTERIOR COLORS

Series, Model	White	Frost White	Dark Brown	Sepia	Beige	Almond	Clay Tone	Gray Tone	Brown Brown	Bronze Tone	Hunter Green
TriCore, Optima (TC-20)	Yes	-	-	-	-	-	-	-	-	-	-
Tricore, Standard (TC)	Yes	Upgrade	Upgrade	Upgrade	Upgrade	-	-	-	-	-	-
ThermaSeal, Standard	Yes	-	Upgrade	-	-	-	-	-	-	-	-
ThermaSeal, Basic	Yes	-	-	-	-	-	-	-	-	-	-
TC200	Yes	Yes	-	Yes	Yes	Yes	Yes	-	Yes	Yes	-
SteelForm, Optima	Yes	-	-	-	-	-	-	-	-	-	-
SteelForm, Standard	Yes	Upgrade ¹	Upgrade ¹	Upgrade ¹	Upgrade ¹	-	-	-	-	-	-
SteelForm, Basic (S-24C)	Yes	-	-	-	-	-	-	-	-	-	-
AlumaView, Optima (HL) ²	-	-	-	-	-	-	-	-	-	-	-
AlumaView, Standard (L) ²	-	-	-	-	-	-	-	-	-	-	-
DesignForm, Optima	Yes	-	Yes	-	-	Yes	Yes	Yes	-	-	Yes
DesignForm, Standard	Yes	-	-	-	-	Yes	Yes	-	-	-	-
DesignForm, Basic	Yes	-	Yes	-	-	Yes	Yes	Yes	-	-	-
StyleForm, Optima	Yes	Upgrade ¹	-	Upgrade ¹	Upgrade ¹	Yes	Yes	-	Yes	Yes	-
StyleForm, Standard	Yes	-	-	-	-	Yes	Yes	-	Yes	Yes	-
StyleForm, Basic	Yes	-	-	-	-	Yes	Yes	-	Yes	-	-

¹ Available in 24 gauge only.

² Models in the AlumaView series are also offered with a clear anodized finish or with a choice of 187 ArmorBrite colors.



StyleForm™ Sectional Raised Panel Doors

10 optional panel configurations and with a choice of 27 window options.

Features specific to each DesignForm model are included below:

- DesignForm Optima - Best choice for an oversized garage with a classic residential appearance; 2-sided steel with thickness of 2" (51 mm); available with optional polyurethane insulation for R-values to 18; a commercial-sized companion for residential Raynor Centura™ doors

- DesignForm Standard - Ideal garage door for RV or boat storage; 2-sided steel with thickness of 1 3/8" (35 mm); available with optional polyurethane insulation for R-values to 13.08; matches the appearance of residential Raynor Innovations Relante™ doors
- DesignForm Basic - Economical solution for applications requiring large doors without the commercial appearance; steel pan construction; thickness of 2" (51 mm); available with optional expanded polystyrene for R-value of 5.0; complements residential sizes of Raynor Innovations Prisma™ doors

StyleForm™ Sectional Raised Panel Doors

StyleForm doors are ideal when exterior appearance is a primary consideration. Doors are 2" (51 mm) thick and are equipped with U-shaped vinyl bottom weatherseals and optional perimeter weatherseals to reduce air infiltration and decrease energy costs. Features specific to each StyleForm model are included below:

- StyleForm Optima - Constructed of hot-dipped galvanized, rust resistant steel with a baked-on finish; polystyrene insulation core pressure-bonded between 2 steel skins for energy savings and noise reduction; vinyl section joint seal to prevent airflow between sections; mechanically interlocked thermal barrier to reduce heat loss and eliminate metal-to-metal contact; wide color selection; embossed wood-



SteelForm™ Sectional Ribbed Doors

grain texture with raised panel or flush panel design

- StyleForm Standard - Stainless steel riveted construction with roll-formed tongue-and-groove meeting rails; optional polystyrene insulation; durable, 1-sided steel door design; classic, raised-panel appearance with authentic woodgrain texture
- StyleForm Basic - Simple solution for typical applications; stainless steel riveted construction with roll-formed tongue-and-groove meeting

TABLE 4 PHYSICAL PROPERTIES

Series, Model	Construction	Surface texture, panel configuration	Insulation R-value	Thermal break
TriCore, Optima (TC-20)	Steel sandwich	Smooth	Polystyrene 16.05	Yes
Tricore, Standard (TC)	Steel sandwich	Stucco	Polystyrene 16.05	Yes
ThermaSeal, Standard	Steel sandwich	Stucco	Polyurethane 16.4	Yes
ThermaSeal, Basic	Steel sandwich	Stucco	Polyurethane 14.5	Yes
TC200	Steel sandwich	Stucco	Polystyrene 10.25	Yes
SteelForm, Optima	Steel pan	Smooth (Flush)	Polystyrene Fiberglass (7.57)	No
SteelForm, Standard (S-10)	Steel pan	Smooth (Ribbed)	Polystyrene (7.7) Fiberglass (7.57)	No
SteelForm, Standard (S-24)	Steel pan	Smooth (Ribbed)	Polystyrene (7.7) Fiberglass (7.57)	No
SteelForm, Basic (S-24C)	Steel pan	Smooth (Ribbed)	Polystyrene (7.7) Fiberglass (7.57)	No
AlumaView, Optima (HL)	Rail	Glass, aluminum frame	-	No
AlumaView, Standard (L)	Rail	Glass, aluminum frame	-	No
DesignForm, Optima	Steel sandwich 24 gauge embossed	Colonial, Ranch, Mixed, Flush (woodgrain)	Polyurethane 18	Yes
DesignForm, Standard	Steel sandwich 24 gauge embossed	Colonial, Ranch, Flush (woodgrain)	Polyurethane 13.08	Yes
DesignForm, Basic	Steel sandwich 24 gauge embossed	Colonial, Ranch, Mixed (woodgrain)	Optional expanded polystyrene 5	N/A
StyleForm, Optima	Steel sandwich	Raised panel, flush (woodgrain)	Polystyrene 10.25	Yes
StyleForm, Standard	Steel pan 24 gauge	Raised panel (woodgrain)	Optional polystyrene 5	No
StyleForm, Basic	Steel pan	Raised panel (pebblegrain)	Optional Polystyrene 5	No

rails; 1-sided steel door with pebblegrain texture; optional polystyrene insulation

SIZES

See Table 2.

COLOR & FINISH

See Table 3.

OPTIONS, UPGRADES

A variety of door options and upgrades are available and vary by model. Consult Raynor for product specific details.

- Choice of oval or full-view windows in insulated glass, acrylic and polycarbonate styles
- High-cycle torsion spring or weight counter-balance systems
- Perimeter or jamb seal to reduce air infiltration and reduce energy costs
- Variety of inside and outside locking options
- Customized track and hardware systems
- Pedestrian doors for convenient entry and to help minimize energy loss

- Removable carry-away and swing-up center posts for extra wide openings
- Carbon monoxide vent to channel fumes to the outside when the door is closed
- Energy-saving insulation with hardboard, white impact resistant or steel back covers
- 187 ArmorBrite™ powder coat colors for door rails and stiles (AlumaView only)
- Aluminum door panels
- Flexible rubber flap header seal to limit air infiltration and reduce energy costs
- Neoprene foam rubber section joint seal to prevent airflow between sections (SteelForm only)
- EPDM rubber or flexible vinyl flap jamb seal helps to reduce air infiltration and decrease energy costs

OPENERS

All Raynor commercial doors feature manual, motor and hand chain operation. Raynor offers a full line of PowerHoist™ operators. Trolley

operators are mounted from the ceiling, and jackshaft operators attach to the wall. A full range of control stations, photoelectric eyes and remote activation devices is available.

4. Technical Data

APPLICABLE STANDARDS

ASTM International

- ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
- ASTM A924/A924M Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process
- ASTM A925 Standard Specification for Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Overhead Ground Wire Strand
- ASTM E283 Standard Test Method for Determining Rate of Air Leakage Through





ThermaSeal™ Sectional Thermal Doors



TC200 Thermal Sectional Doors



AlumaView™ Sectional Rail & Stile Doors

Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen

PHYSICAL/CHEMICAL PROPERTIES

See Table 4.

5. Installation

PREPARATORY WORK

Deliver products in manufacturer's original, unopened, undamaged containers with identification labels intact. Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

Verify that site conditions are acceptable for installation. Do not proceed with installation until unacceptable conditions are corrected. Only authorized representatives of Raynor shall perform installation of sectional doors.

METHODS

Every Raynor door is installed by a trained, experienced Raynor professional.

BUILDING CODES

Installation must comply with requirements of all applicable local, state and federal code jurisdictions.

6. Availability & Cost

AVAILABILITY

Products are available from over 600 authorized dealers serving North America and 50 countries worldwide. Dealers can be located by visiting Raynor's online dealer locator at

www.raynor.com.

COST

Consult an authorized Raynor dealer for pricing information. Dealers can be located by visiting Raynor's online dealer locator at www.raynor.com.

7. Warranty

Warranty terms and conditions vary by product. Consult Raynor for complete warranty details.

8. Maintenance

Service and repair should be performed by an authorized Raynor dealer. Consult Raynor for complete maintenance details.

9. Technical Services

Detailed product information is available online at www.raynor.com. Technical assistance, including more detailed information, product literature, test results, project lists, assistance in preparing project specifications and arrangements for application supervision, is available by contacting Raynor.

10. Filing Systems

- Reed First Source®
- First Source CAD
- MANU-SPEC®
- Additional product information is available from the manufacturer upon request.