ARCHITECTURAL REFERENCE GUIDE

HE SUN

SUNSHINE= ■DOOR

Only the "Original" Sunshine Door comes with extra aluminum structure for strength, rubber gasket seals, and continuous polycarbonate glazing the full width of the door. Talk to your door dealer to ensure that they are supplying the one and only, the real, the "ORIGINAL" Sunshine Door. sunshinedoor.com

COMMERCIAL INDUSTRIAL INSTITUTIONAL





COMMERCIAL – AGRICULTURAL – INDUSTRIAL





CAR WASH DOORS





SUPERIOR STRENGTH. SUPERIOR PERFORMANCE



FAST SHIPPING FOR EMERGENCY REPAIRS



CAR WASH DOORS





Sunshine Car Wash Doors are available with many options, including track cut out, bottom aluminum exterior panel, single pane clear acrylic, clear view wide port acrylic, and of course a selection of 8 colours of triple wall 5/8" thick polycarbonate. Sunshine Car Wash Doors are 1/3 the weight of glass, 140 times stronger than glass, and let in up to 80% of the natural sunlight. Each door is manufactured with anodized aluminum extrusion, engineered with an integral truss in each section for added strength and durability. All Sunshine Doors have rubber weather stripping between each of the sections, and thermal transfer between the exterior aluminum face and the glazing is addressed by sealing with a compression sealed rubber glazing wedge. Reduce the risk of freeze up, improve durability, keep rust away, with the original Sunshine Door, Built Tough.

EMERGENCY SERVICES

EIN

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Capable of High Cycle Usage Can be used with Mid-High Speed Operators Triple Wall for Better Insulation than a glass door 1/3 the Weight of Glass 140 times Stronger than Glass Up to 80% Visible Light Transmittance

Standard Frame Colour Clear Anodized Aluminum Optional Frame Colour Black Anodized Aluminum.



EMERGENCY SERVICES





Available with optional COMMERCIAL GRADE INTERNAL STRUCTURAL STEEL REINFORCING





CLEAR VIEW WIDE PORT ACRYLIC





MANUFACTURER OF THE "ORIGINAL" SUNSHINE DOOR WWw.sunshinedoor.com



VISUAL CLARITY

• Optically Clear, UV Resistant, and a No Drip anti-condensate coating on all surfaces, inside & out.

IMPACT RESISTANT

• Acrylic polymethyl methacrylate polymer is more than 17 times stronger than glass with impact resistance making it the preferred choice for professional sports arenas.

SOUND DAMPENING

• Dual Wall Clear View Wide Port Acrylic Weighted Sound Reduction Index at 22 dB.

STRUCTURAL STABILITY

• Dual Wall Clear View Wide Port Acrylic has interconnecting walls every 2.5" to enhance structural rigidity. LIGHT WEIGHT

• Clear View Wide Port Acrylic weighs less than 1 lb/sqft, which is a fraction of the weight of glass.

SECURE

• The Non-shattering characteristics are further enhanced and strengthened by the multi-rib structure. 17 times stronger than glass multiplied by multiple walls and ribs. Safe for people & there are easier ways to break in.

91% VISIBLE LIGHT TRANSMITTANCE

• Clear View Wide Port Acrylic provides the maximum amount of natural daylighting.

DUAL PANE ENERGY PERFORMANCE

• Clear View Wide Port Acrylic is more than 50% better than R0.9 single layer glazing and at U-0.49 (R2.04) is better than a dual pane sealed unit of glass rated at only R1.72 with a 0.25" airspace as typical for similar applications.

ENVIRONMENTALLY FRIENDLY

• Clear View Wide Port Acrylic is 100% RECYCLABLE, and all manufacturing cut offs are recycled by Sunshine Door. COMMERCIAL GRADE

• Clear View Wide Port Acrylic has been designed for commercial & institutional use.

FIRE BEHAVIOR

Clear View Wide Port Acrylic is rated at C2 or CC2 according to ASTM D-635. It burns almost entirely without smoke according to DIN4102 and ASTMD-2843 and is easily extinguished. The ASTM D-1929 self ignition temperature is very high at 840degrees F, with a smoke density rating of 2.0%, being neither acutely toxic according to DIN53436 nor corrosive according to DIN VDE 0482-267. CLEAR VIEW WIDE PORT ACRYLIC IS SAFE.



Modern Contemporary RESIDENTIAL





The "Original" **Sunshine Door** - Residential Garage Doors of Aluminum structure and a great selection of **Polycarbonate** Colours, **SunView Glass** choices, and **WoodGrain** exterior panels. Manufactured in Alberta



Modern Contemporary RESIDENTIAL





The Original Sunshine Door is available with a wide selection of exterior wood grain face panels to match your siding and trim. Visit our website or luxpanel.ca for a full selection of wood grain choices.





The Original Sunshine Door is available in clear anodized, black anodized, or white aluminum and any of these colours of polycarbonate.



HIGH PERFORMANCE DOORS



SunShine & SunView Doors offer incredible Commercial / Industrial STRENGTH

The Cleanest Looking Interior of any Full View Door on the market with standard continuous one piece aluminum interior glazing wall and an optional internal steel reinforcing channel.

COMMERCIAL GRADE INTERNAL STRUCTURAL REINFORCING



INTERNAL REINFORCING for Enhanced Structural Integrity

Sunshine & SunView Doors by,



The "Original **Sunshine Door** shown here with Black Anodized Aluminum & Silver Polycarbonte is; 1/3 the Weight of Glass & 140 Times Stronger than glass.



This SunView Door with Tempered Glass is 5 Times Stronger than regular glass & almost 600 Lbs,... Heavy.





2000				
			Sunshine	SunView2
			SunView	Commercial/Contemporary
	Sunshine 12	Sunshine 12C	<u>SV4517</u>	<u>SV2</u>
<u>Structure</u>				
Thickness	1-3/4"	1-7/8″	1-3/4"	2″
End Cap	3″	3" (1-1/2")	3″	6″
Bottom Section Bottom Rail	2″	2″	2″	6″
Double End	16'3"+	16'3"+	16′0"+	All Sizes
Top & Bottom Retainer	Add	Add	Add	Integral
Glazing Stop	Integral	Integral	Integral	Removable
Internal Reinforcing Option	Option		Option	
Aluminum Colour	-			
Clear Anodized	Y		Y	Y
Black Anodized	Y		Ŷ	Y
White Painted		Y		Y
Closing				
<u>Glazing</u> Polycarbonate 5/8" Triple Wall	Y	Y	Y	Y
Clear View Wide Port Acrylic	Y	Y	Y	Y
Single Pane Acrylic	Y	N	Y	Y
Tempered Glass Options		IN IN	,	
Glass Thickness (3mm/3mm)			9/16"	1/2"
Dual Pane Clear			Y	Υ
Dual Pane LowE			Y	Y
Dual Pane Clear/Etched Obscure			Y	Y
Dual Pane Grey/Etched			Y	Y
Dual Pane Bronze/Etched			Ŷ	Y
Metal Face Panels Anodized Aluminum	Y		Y	Y
WoodGrain	Y		Y	Y
Perforated	Y		Y	Y
	•		,	
Size Limitations			4.040.11	
Width	24'2"	30'0"*	18'2"	18'2'
Height	30'0"	30'0'	14'0"	16'0"
Sq Ft	700	800	200	220
Weights (SECTIONS ONLY)				
Polycarbonate	1.3			
Clear View Wide Port Acrylic	1.8			
Aluminum Exterior Only Panel	2.02			
WoodGrain Face Panels	2.5			
Dual Pane Tempered Glass	4.1			4
Single Pane Tempered Glass	2.5			2.35
Aligns With				
TX450	Y	Y (1/8" overlap)	Y	
G5000	Y			
CHI 3217		Y		
Amarr 2732				Y
Amarr 2742		Mod		Y
NW308		Mod		
Clopay 3717	Mod			
Haas 2000	Mod			
Haas 700	Mod			
SC TD134	Mod			

SUNSHINE DOOR

HEAD OFFICE & MANUFACTURING 33 MCKENZIE CRESCENT RED DEER COUNTY AB, T4S 2H4







	Style						
Section Size	Placement						
8'	48						
9'	54						
10'	40	80					
12'	48	96					
14'	42	84	126				
16'	48	96	144				
18'	54	108	162				
20'	40	80	120	160	200		
22'	44	88	132	176	220		
24'	48	96	144	192	240		
26'	39	78	117	156	195	234	273
28'	42	84	126	168	210	252	294
30'	45	90	135	180	225	270	315

Sunshine Door Strut Schedule





* For Door Sizes under 16'2" wide x 10'0" high, only 1 top strut required, (if using a trolley operator).

For high wind load areas, increase the number struts, and use minimum 3" struts.
 For Sunshine Doors with metal face panels, increase strut requirement by 25%, so on a 4 section 16x8 door as an example, add one extra strut.



PRODUCT DESCRIPTION

Page 1

SUNSHINE DOOR

PRODUCT FEATURES

DESCRIPTION

- Sectional, translucent glazed aluminum overhead doors.
- BASIC USES / RELATED USES
 - External overhead doors for homes, commercial and industrial buildings, shops, car washes, car and RV dealerships and service bays, restaurants, parkades.
- PRODUCT ATTRIBUTES AND CHARACTERISTICS
 - Glazing: Standard is 16 mm (5/8") thick, triple-wall polycarbonate sheet.
 SV4517 Alternate 9/16" overall thickness dual pane 3.2mm tempered/tempered glass
 - High impact resistance.
 - High light transmittance.
 - High weather resistance (passes E84 steinner tunnel test).
 - Light weight polycarbonate results in 1.3 Lbs/SqFt section weight.
 - SV4517 alternate with dual pane tempered glass sections weigh 4.1 Lbs/SqFt.
 - Online Brochure: <u>http://sunshinedoor.com/files/5113/4754/8894/SunshineDoorWebBrochure.pdf</u>
- APPLICABLE STANDARDS, RELATED REFERENCES
 - AAMA 2603-13 Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
 - ANSI/DASMA 102 2011 Specifications for Sectional Doors.
 - ASTM B117-11 Standard Practice for Operating Salt Spray (Fog) Apparatus
 - ASTM D523-14 Standard Test Method for Specular Gloss
 - ASTM D714-02(2009) Standard Test Method for Evaluating Degree of Blistering of Paints
 - ASTM D1308-02(2013) Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
 - ASTM D3363-05(2011)e2 Standard Test Method for Film Hardness by Pencil Test





2017-02-03

Page 2

PRODUCT DESCRIPTION

- ASTM D7091 13 Standard Practice for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nonconductive Coatings Applied to Non-Ferrous Metals
- ASTM E84-14 Standard Test Method for Surface Burning Characteristics of Building Materials.
- PERFORMANCE CRITERIA
 - Maximum deflection of door in open (horizontal) position: $1/120^{\text{th}}$ of the door width.
 - Wind Loads: Comply with ANSI/DASMA 102.
- QUALITY STATEMENTS
 - Manufacturer qualifications:
 - The Original Sunshine Door Inc has been manufacturing for 18 years.
 - Member of International Door Association (IDA).
 - Member of Canadian Door Institute (CDI).
 - Member of Canadian Home Builders' Association (Central Alberta).
 - Member of Red Deer Chamber of Commerce.
 - Installer Qualifications: Minimum five years of documented experience, and approved by Sunshine Door Inc.
- PACKAGING, HANDLING AND STORAGE
 - Door sections should be carried and handled in the upright position, on edge. Carrying flat can result in damage.
 - Store in manufacture's unopened packaging until time of installation. Protect from moisture.
 - Store in dry weather tight location.
- WARRANTY
 - Five years on polycarbonate in accordance with manufacturers tolerances, against discoloration, loss of light transmission and loss of strength due to weathering.





2017-02-03

PRODUCT DESCRIPTION

Page 3

• AVAILABILITY

- Direct from manufacturer.
- Distributor: Contact Sunshine Door Inc., for a listing of distributors and installation dealers.
- COST
 - Consult manufacturer or distributor offices for specific product costs or relative costs.

PRODUCT PROPERTIES

• MATERIALS

- Aluminum: Extruded, 6063-T5, 2 mm thick, clear anodized.
- Glazing:
 - **Standard: Polycarbonate**, triple wall construction, 16 mm thick.
 - \Box Weight: 2.7 kg/m²
 - □ Light transmittance:
 - Clear: 76%
 - Bronze: 50%
 - White: 20%
 - Grey: 18%
 - Blackberry: 52% Blue: 64%
 - Blue: 64%
 - Green: (special order)
 - Red: (special order)
 - □ UV Thickness: 60 micron
 - \Box Heat transfer coefficient (U-value): 2.4 W/m²/°K (0.42 BTU/hr·ft²·°F)
 - □ Solar Heat Gain Coefficient (SHGC): 35% (based on 16mm triple wall clear)
 - \Box Coefficient of thermal expansion: 0.065 mm/m°C
 - □ Weighted sound reduction index: 16 db
 - \Box Tensile Strength: >=60 N/mm
 - □ Flexural strength: 100 N/mm²
 - □ Modulus of elasticity: 2400 MPa
 - \Box Tensile stress at break: >=65 MPa
 - \Box Elongation at break: >100%
 - □ Scratch resistant: Not anti-scratch.
 - □ Recyclability 100%



2017-02-03

SUNSHINE ■DOOR 403-356-9472

PRODUCT DESCRIPTION

Page 4

-	Other o	glazing types:
-		Glass: Dual Pane 9/16" overall thickness
		Tempered / Tempered
		Glass thickness: 3.2mm
		Glass Type: Clear Float Glass
		Acrylic: Dual wall, 16 mm (5/8 inch) thick, clear view wide port. Light transmittance: Clear 91%
		Interconnecting walls every 2.5" for structural rigidity.
		Weighted Sound Reduction Index at 22dB.
		Thermal Performance u0.49 (R2.04)
		Recyclability 100%
		Fire Behaviour: C2 or CC2 according to ASTM D-635. It burns almost entirely without smoke according to DIN4102 and ASTMD-2843 and is easily extinguished. The ASTM D-1929 self ignition temperature is very high at 840degrees F, with a smoke density rating of 2.0%, being neither acutely toxic according to DIN53436 nor corrosive according to DIN VDE 0482-267.
		Exterior Face Panel over Polycarbonate to Interior:
		Aluminum sheet, 1.25 mm (0.050") thick facing to exterior, with polycarbonate backing. (Option for Aluminum sheet, 1.25 mm (0.050") thick, both sides with 50 mm (2 inch) rigid insulation between.)
		Aluminum sheet, powder coated to ASTM 2603, wood grain finish.
		Stainless steel: limited to 3 m (10 ft) widths.
		Steel sheet, 24g, painted with wood grain or decorative finish
Glazing	g Metho	
		Rubber glazing wedge, allowing for differing coefficients of expansion and
		contraction. Foam and or Butyl glazing tapes as required.
		SV4517 Glass to include rubber setting blocks between the edge of glass and aluminum stiles and rails at quarter points around all 4 sides.

SIZES •

0

- Standard Widths: 0
 - Full door width up to 8.54 m (28 ft).
 - Multiple sections can be combined with specialty hardware to produce wider doors.





Page 5

2017-02-03

PRODUCT DESCRIPTION

- Standard Heights:
 - 450 mm (18 inch) section.
 - **525** mm (21 inch) section.
 - 610 mm (24 inch) section.
 - Full door height: maximum 9.1 m (30 ft).
- Custom widths and heights are available.
- Section Thickness:
 - 45 mm (1-3/4 inch) as measured from interior to exterior face of rail.

• ACCESSORIES

- Operators, Locks: Provided by dealer.
- Weatherstripping:
 - Standard: Thermoplastic volcanizate (Santoprene 201-64)
- SHOP FABRICATION AND ASSEMBLY
 - Track, Counterbalance Spring, Hardware: Provided by dealer.
- FINISHES
 - Aluminum Finish:
 - Clear anodized.
 - Black anodized.
 - Painted: White.
 - Mill Finnish on section widths over 24'2".
 - Powder Coated: Thermosetting acrylic powder coating (PPG Duracron), to AAMA 2603, standard or custom colours. Coating performance:
 - \Box Dry Film Thickness: 1.0 +/- 0.8 mil, to ASTM D7091.
 - \Box Gloss: High, medium and low gloss, to ASTM D523 @ 60°.
 - □ Pencil Hardness: H minimum, to ASTM D3363.
 - \Box Cross Hatch Adhesion (1/16" wet and dry): Excellent no removal.
 - \Box Direct Impact (1/10" distortion): Excellent no removal.
 - □ Acid Resistance: 15 minutes no attack, to ASTM D1308 (10% muriatic acid spot test).
 - \Box Alkali Resistance: 25 hours no attack.
 - Detergent Resistance: 72 hours, no attack (3% immersion @ 100°F)
 - □ Salt Spray Resistance: 1/16" maximum undercutting, to ASTM B117 (1500 hrs,



2017-02-03

SUNSHINE DOOR sunshinedoor.com 403-356-9472

Page 6

5% NaCl @ 100°F)

- Humidity Resistance: Up to few #8 blisters maximum, to ASTM D714.
- Exterior Exposure: No loss of adhesion, maximum $8\Delta E$ color change, maximum 6 chalk rating, (1 yr @ 45°, south Florida).

PRODUCT PLACEMENT

PRODUCT DESCRIPTION

• PREPARATION

- Insure door opening is of correct size, square and plumb.
- Allow minimum headroom above frame opening height:
 - 50 mm (2") Track: 375 mm (15 inches)
 - 75 mm (3") Track: 450 mm (18 inches)

• STORAGE

- Store in a clean dry space with moderate temperature and low humidity.
- Store in a vertical position to prevent moisture, dust, or other contaminants from settling on the sections.
- Do not lay flat.
- Leave protective packaging in place until installation, with the exception of any adhesive packaging which must be removed within 30 days of manufacturing.
- Do not stack sharp, heavy, or abrasive items on nor against the Sunshine Door products.

• INSTALLATION

- Install overhead doors and track in accordance with approved shop drawings and manufacturer's printed instructions.
- Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance after installation.
- Anchor door assembly to wall and building using anchors for the proper weight and size of door as well as area wind load requirements.
- Securely brace door tracks suspended from structure. Support vertical lift track that breaks away from wall more than 300 mm (12") with angle to wall or structural members.
- Adjust hardware and moving parts to function smoothly so that doors operate easily. Adjust doors and seals to provide weather tight fit around entire perimeter.





2017-02-03

PRODUCT DESCRIPTION

Page 7

• WASTE RECYCLING

- Aluminum and polycarbonate materials can be recycled.
- Aluminum and polycarbonate manufacturing waste is recycled by Sunshine Door Inc.

MAINTENANCE INSTRUCTIONS AND PROCEDURES

- Clean with solution of mild soap or household detergent and lukewarm water, using a soft cloth or sponge to loosen any dirt and grime. Dawn dish soap is highly regarded for cleaning polycarbonate surfaces.
- Rinse with cold water and dry with soft cloth to prevent spotting.
- Never use abrasive or highly alkaline cleaners on polycarbonate glazing.

Corporate Identification

Sunshine Door Inc. #105, 33 McKenzie Crescent Red Deer County, Alberta T4S 2H4 Phone: 403.356.9472 www.sunshinedoor.com

Contact : Brian Kobialka Email : <u>Brian@SunshineDoor.CA</u> Tel : (780) 722-8227

Classification and Filing

MasterFormat:

08 36 13 - Sectional Overhead Doors

OmniClass:

23-30 10 17 37 14 - Sectional Overhead Doors

UniFormat:

B2050 – Exterior Oversize Doors



END

This section includes aluminum glazed overhead sectional doors manufactured by Sunshine Doors Inc, with manual, chain or electric operation, with our without windows.

This section includes performance, proprietary, and descriptive type specifications; edit text to avoid conflicting requirements.

For more product information, contact Brian Kobialka (780) 722-8227 or *e-mail* <u>Brian@SunshineDoor.CA</u>, or visit <u>www.sunshinedoor.com</u>.

Part 1 General

1.1 SECTION INCLUDES

In this article, select the components or assemblies that are intended to be part of the content of this section and will not be included in other sections.

- .1 Aluminum overhead sectional door.
- .2 Glazing into aluminum sections.
- .3 Operating hardware and tracks.
- .4 [Manual] [Chain-Operated] [Electric] door operator.

1.2 RELATED SECTIONS

In this article, indicate those sections that inter-rely on this section. The listing below is only partial and should be edited to include those sections specific to the project that describe subjects or products that affect this section directly.

- .1 Section 05 50 00 Metal Fabrications: Steel [channel] opening frame.
- .2 Section 06 10 13 Wood Blocking and Curbing: Rough wood [blocking] [framing] for door opening.
- .3 Section 07 92 00 Joint Sealants: Perimeter sealant and backup materials.
- .4 Section 08 71 00 Door Hardware General: Cylinder locks.
- .5 Section 08 80 50 Glass and Glazing: Glass for door lights.
- .6 Division 26 Electrical: Electrical service connection to door controller.

1.3 REFERENCES

Edit this article after editing the rest of this section. Only list reference standards below, that are included within the text of this section, when edited for a project specification delete other references that do not apply.

- .1 AAMA 2603-13 Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
- .2 ANSI/DASMA 102 2011 Specifications for Sectional Doors.
- .3 ASTM B117-11 Standard Practice for Operating Salt Spray (Fog) Apparatus
- .4 ASTM D523-14 Standard Test Method for Specular Gloss



- .5 ASTM D714-02(2009) Standard Test Method for Evaluating Degree of Blistering of Paints
- .6 ASTM D1308-02(2013) Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
- .7 ASTM D3363-05(2011)e2 Standard Test Method for Film Hardness by Pencil Test
- .8 ASTM D7091 13 Standard Practice for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nonconductive Coatings Applied to Non-Ferrous Metals
- .9 ASTM E84-14 Standard Test Method for Surface Burning Characteristics of Building Materials.

1.4 SYSTEM DESCRIPTION

Use this article carefully; restrict statements to describe the combined result of the components used to assemble the system. Do not repeat statements made in the Section Includes article.

- .1 Panels: Aluminum frame panels with full-width polycarbonate glazing.
- .2 Lift Type: [Vertical lift] [Standard lift] [High lift] [Low headroom] operating style with track and hardware.
- .3 Operation: [Electric] [Pneumatic] [Chain hoist] [Manual pull], counter-balanced..
- .4 Loads: Design and size components to withstand dead and live loads caused by pressure and suction of wind acting normal to plane of wall as measured in accordance with ANSI/DASMA 102.

1.5 SUBMITTALS FOR REVIEW

Do not request submittals if this specification section or drawings sufficiently describe the products of this section or if proprietary specifying is used. This requested review of submittals increases the possibility of unintended variations to the contract documents, thus increasing a consultant's liability. The following submittals are intended for review to determine eligibility for the project.

- .1 Section 01 33 00: Submission procedures.
- .2 Shop Drawings: Indicate opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, installation details and [____].
- .3 Product Data: Provide component construction, anchorage method, hardware, and [____].

Include the following paragraph for submission of physical samples for selection of finish, colour, texture, etc.

.4 Samples: Submit [two (2)], aluminum and polycarbonate glazing panel samples, [<[___] mm><<[___] inch>>] in size, illustrating colour and finish.

1.6 SUBMITTALS FOR INFORMATION

The following submittals are for information only; do not request these submittals if the information submitted will be assessed for acceptability.

.1 Section 01 33 00: Submission procedures.



When manufacturer's written instructions for specific installation requirements are referenced in Part 3 Execution, include the following request for submittal of those instructions. Edit the Part 3 statements to avoid conflict with manufacturer's written instructions.

.2 Installation Data: Manufacturer's special installation requirements, special procedures, perimeter conditions requiring special attention, and [____].

1.7 CLOSEOUT SUBMITTALS

The following submittals are for project closeout purposes; do not request these submittals if the information submitted will be assessed for acceptability.

- .1 Section 01 78 10: Submission procedures.
- .2 Operation and Maintenance Data:
 - .1 Include electrical control adjustments and [____].
 - .2 Include data for [transmission] [motor] [shaft and gearing], lubrication frequency, spare part sources.

Coordinate the following paragraph with the WARRANTY article.

.3 Warranty Documentation: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.8 QUALITY ASSURANCE

This article includes statements that require quality applicable to the whole section. If it is desirable or required for a manufacturer of a product to be certified, include such statement below.

- .1 Products of This Section: Provide all Products and components specified in this section from one manufacturer.
- .2 Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum [ten (10)] years [documented] experience.
- .3 Installer Qualifications: Company specializing in performing the work of this section with minimum [five (5)] years documented experience and approved by the manufacturer.

1.9 REGULATORY REQUIREMENTS

Only include this article when required by applicable code criteria.

- .1 Conform to applicable code for motor and motor control requirements.
- .2 Products Requiring Electrical Connection: Listed and classified by [testing firm acceptable to the authority having jurisdiction] [CSA] [UL] as suitable for the purpose specified.

1.10 DELIVERY, STORAGE AND HANDLING

- .1 Door sections should be carried and handled in the upright position, on edge. Carrying flat may result in damage.
- .2 Store in manufacture's unopened packaging until time of installation. Protect from moisture.



.3 Store in dry weather tight location.

1.11 WARRANTY

This article extends the warranty period beyond the one (1) year contract warranty period. Extended warranties add to construction cost and may present difficulties to the Owner by enforcing them. Specify with caution.

- .1 Section 01 78 10: Warranties.
- .2 Warranty: Manufacturer's five (5) year warranty against materials and workmanship of door sections.
 - .1 Include coverage of polycarbonate to manufacturers tolerances, including discolouration, loss of light transmission, and loss of strength due to weathering.

The following paragraph requests a manufacturer warranty; the request may not be effective as the manufacturer is outside the jurisdiction of the Owner/Contractor contract. Coordinate this paragraph with the Submittals at Project Closeout article.

.2 Provide [one (1)] year manufacturer warranty for electric operating equipment.

Part 2 Products

2.1 MANUFACTURERS

This article is for proprietary specifying with one or more manufacturers. Use the first and third paragraphs for specifying a single manufacturer. If specifying a product by reference to a standard only, delete this article.

.1 The Original Sunshine Door, manufactured by Sunshine Door Inc. #105, 33 McKenzie Crescent Red Deer County, Alberta T4S 2H4 Phone: 403.356.9472 www.sunshinedoor.com

> Contact : Brian Kobialka Email : <u>Brian@SunshineDoor.CA</u> Tel : (780) 722-8227

.2 Supply Source:

Authorized Supply Only Dealers & Distributors Authorized Supply & Install Dealers & Distributors Contact Sunshine Door Inc for local dealer references.

.3 Substitutions: Not permitted .

2.2 MATERIALS

.1 Aluminum: Extruded, 6063-T5, 2 mm thick, 4 mm thick at hinge fastening locations.

Standard glass is clear, 16 mm (5/8 inch) thick polycarbonate. Acrylic is an alternate glazing. Refer to the manufacturer's literature for the wide variety of glazing and acrylic types and colours available.



Sunshine Doors 2014-07-28 Digicon Information Inc.

- .2 Glazing:
 - Continuous full width Polycarbonate, Triple-wall construction, [<16 mm><<5/8 inch>>] thick, [clear] [white] [bronze] [blue] [silver grey] [blackberry] [Green] [Red] colour, with ultra-violet protection layer on the exterior surface.
 Polycarbonate Thermal U-value 0.42 (R2.38)
 Polycarbonate glazing must be complete as one unit the full width of the frame.
 - Acrylic, dual-wall construction, [<19 mm><<3/4 inch>>] thick, wide port 2.5" rib spacing. Referenced as Clear View Wide Port Acrylic.
 Thermal U-value 0.49 (R2.04)

Acrylic glazing must be complete as one unit the full width of the frame.

- .3 Glazing gasket: Glazing wedge, compression fit rubber glazing wedge.
- .4 Aluminum Finish: [Clear Anodized] [Black Anodized] [Painted white] [Thermosetting acrylic powder coating to AAMA 2603, PPG Duracron, colour [as selected]].
- .5 Weatherstripping:
 - .1 Glazing: Thermoplastic vulcanizate, polyolefin based, recyclable. Santoprene 201-64.
 - .2 Between sections: Bulb weatherstripping, factory installed.

2.3 PANEL CONSTRUCTION

- .1 Stiles and rails: Extruded aluminum frame stiles and rails, minimum 2 mm thick, and 4 mm thick at hardware fastening locations.
 - .1 Provide integral aluminum truss wall concealed within rail extrusion, from exterior to interior at the centre, on both interior and exterior frames. Truss wall to run whole width of door panel.

Select from the following panel configurations; delete inappropriate paragraphs. Maximum sizes, for reference: Maximum panel width (anodized or painted aluminum): 600 mm (24 inch). Maximum panel length (mill finish): 9.1 m (30 ft) x 600 mm (24 inch) wide. Section weight: 3 N/sq m (1.3 lb/sq ft).

.2 Panels:

- .1 Glazing Panels: Polycarbonate, one-piece continuous triple-wall glazing, full width of panel, with extruded aluminum frame. Seal exterior glazing joints with gasket; do not use silicone.
- .2 Glazing Panels: Acrylic, one-piece continuous dual-wall glazing, full width of panel, extruded aluminum frame.
- .3 Infill Panels: Aluminum sheet both sides, with 13 mm (1/2 inch) insulation between, one-piece full width of panel, with extruded aluminum frame. Seal exterior glazing joints with gasket; do not use silicone.
- .4 Infill Panels: Aluminum sheet one side (exterior) over 16 mm (5/8 inch) polycarbonate, one-piece full width section, extruded aluminum frame.
- .5 Infill Panels: 24g steel sheet to one side (exterior) over 16 mm (5/8 inch) polycarbonate, one-piece full width section, extruded aluminum frame.



- .6 Glazing of polycarbonate, acrylic, infill panels to be set and captured directly into the extruded aluminum framework. Add on glazing stops not permitted.
- .7 Door Nominal Thickness: [<45 mm><<1-3/4 inches>>] thick.

2.4 HARDWARE COMPONENTS

Specify 2.0 mm (12 gauge) thick and 75 mm (3 inch) wide track where required to maintain performance requirements for doors larger than 9.3 sq m (100 sq ft). Refer to manufacturer's recommendations.

- .1 Track: Rolled galvanized steel, [<1.3 mm><<16 gauge>>] [<2.0 mm><<12 gauge>>] thick; [<75 mm><<3 inch>>] [<50 mm><<2 inch>>] wide, continuous one piece per side; galvanized steel mounting brackets [<1.6 mm><<14 gauge>>] thick.
- .2 Hinge and Roller Assemblies: Heavy duty hinges and adjustable roller holders of [stainless steel] [galvanized steel]; floating hardened steel bearing rollers, located at top and bottom of each panel, each side.
- .3 Lift Mechanism: Torsion spring on cross head shaft, with braided galvanized steel lifting cables. Manual operation with maximum exertion of [<110 N><<25 lbs>>], force.

Coordinate this operator clause with other clauses. Delete electrical and control criteria if manual or chain operated.

- .4 Operator: [Manual] [Chain] [Electric] [Pneumatic].
- .5 Sill Weatherstripping: Fit to bottom of door panel, full length contact.
- .6 Jamb Weatherstripping: Place full height of jamb, in moderate contact with door panels.
- .7 Head Weatherstripping: One piece full length, fixed to top section.
- .8 Panel Joint Weatherstripping: One piece full length, bulb weather stripping.

In the following paragraph, a locking door is usually associated with manually operated door assemblies; an electric disconnect is usually used with electric door assemblies.

.9 Lock: Inside [centre] [side] mounted, adjustable keeper, spring activated latch bar with feature to retain in locked or retracted position; [interior] [exterior] handle; lock [master keyed] [keyed differently] [keyed to Section 08 71 00] [keyed alike].

2.5

ELECTRICAL CHARACTERISTICS AND COMPONENTS

Include and edit this article for electric operation. Select one or more of the following subparagraphs appropriate to the equipment requirements.

- .1 Electrical Characteristics:
 - .1 [<250 W><<1/3 hp>>] [<375 W><<1/2 hp>>], [[____] rated load amperes]; manually operable in case of power failure, transit speed of [<300 mm><<12 inches>>], per second.
 - .2 [___] volts, [single] [three] phase, 60 Hz.
 - .3 [___] amperes maximum [overcurrent protection] [circuit breaker size] [fuse size]. [[]] minimum circuit capacity].
 - .4 [] percent minimum power factor at rated load.
 - .5 Refer to Section 26 05 80 Equipment Wiring: Electrical connections.



NEMA Type 1 is General Purpose, Type 4 is Totally Enclosed.

- .2 Motor: [CAN/CSA C22.2 No. 100] [Refer to Section 23 05 13] [NEMA MG1, Type [____]].
- .3 Wiring Terminations: Provide terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated. Enclose terminal lugs in terminal box sized to NFPA 70.
- .4 Disconnect Switch: Factory mount disconnect switch [on equipment to Section 26 05 80] [in control panel].
- .5 Electric Operator:
 - .1 [Side mounted on cross head shaft] [Centre mounted draw bar assembly] [Centre mounted on cross head shaft], adjustable safety friction clutch.
 - .2 Brake system actuated by independent voltage solenoid controlled by motor starter; enclosed gear driven limit switch; enclosed magnetic cross line reversing starter; mounting brackets and hardware.

Select and edit one of the following two paragraphs. Select type and quantity of control stations when specifying electric motors.

.6 Control Station:

- .1 Standard [one (1)] [three (3)] button (open-close-stop) [momentary] [continuous pressure] type, control for each electric operator; [24] volt circuit, [recessed] [surface mounted].
- .2 Include key operated switch located [at exterior location indicated] [inside door jamb].

Expand the following paragraph with text description appropriate to project requirements when applicable.

.7 Interconnection to Security System: [____].

Select and expand one or more of the following three paragraphs with text description appropriate to project requirements.

- .8 Radio Control Antenna Detector: [].
- .9 [Loop Detector] [Treadle]: [____].
- .10 Hand Held Transmitter: Digital control, resettable.
- .11 Safety Edge: At bottom of door panel, full width; [electro-mechanical] sensitized type, wired to [stop] [reverse] door upon striking object; hollow [rubber] [neoprene] covered to provide weatherstrip seal.

2.6 FINISHES

Select and edit only the following paragraphs that apply. Sunshine Door produce standard powder coated door panels, and uncoated (galvanized) hardware and track.

- .1 Door Panels:
 - .1 [Clear anodized] [Black anodized] [Painted white] [Precoat with thermosetting acrylic finish, colour [clear] [as selected]].



- .2 Track: [Uncoated] [as selected].
- .3 Hardware: [Uncoated] [as selected].

Part 3 Execution

3.1 EXAMINATION

- .1 Section 01 70 00: Verify existing conditions before starting work.
- .2 Verify that wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
- .3 Verify that electric power is available and of the correct characteristics.

3.2 PREPARATION

- .1 Prepare opening to permit correct installation of door unit to perimeter air and vapour barrier seal.
- .2 Apply primer to wood frame.

3.3 STORAGE

- .1 Store in a clean dry space with moderate temperature and low humidity.
- .2 Store in a vertical position to prevent moisture, dust, or other contaminants from settling on the sections.
- .3 Do not lay flat.
- .4 Leave protective packaging in place until installation, with the exception of any adhesive packaging which must be removed within 30 days of manufacturing.
- .5 Do not stack sharp, heavy, or abrasive items on nor against the Sunshine Door products.

3.4 INSTALLATION

Only include the following paragraph if a manufacturer actually publishes installation instructions many do not. If the manufacturer does NOT publish such a document, ensure all install criteria that is important to the project, is specified below.

- .1 Install door unit assembly to manufacturer written instructions.
- .2 Anchor assembly to wall construction and building framing without distortion or stress.
- .3 Securely brace door tracks suspended from structure. Secure tracks to structural members only.
- .4 Fit and align door assembly including hardware.
- .5 Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components. Final connection of electrical service to be performed by qualified personnel.
- .6 Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07 92 00.
- .7 Install [perimeter trim] [closures].



3.5 ERECTION TOLERANCES

Do not assume that there are industry standards for tolerances. Specify tolerances below as appropriate to the nature or character of the project. Verify that such tolerances are realistic and realizable.

- .1 Section 01 73 00: Tolerances.
- .2 Maximum Variation from Plumb: [<1.5 mm><<1/16 inch>>].
- .3 Maximum Variation from Level: [<1.5 mm><<1/16 inch>>].
- .4 Longitudinal or Diagonal Warp: Plus or minus [<3 mm><<1/8 inch>>], from [<3 m><<10 ft>>] straight edge.
- .5 Maintain dimensional tolerances and alignment with adjacent work.

MANUFACTURER'S FIELD SERVICES

This article is included to assist in field quality control of work being installed. The legal affect of this type of article is questionable and will not relieve the design professional of legal responsibility for the work described in this section. Specify with some measure of caution.

- .1 Section 01 78 10: Prepare and start components.
- .2 Ensure the operation and adjustments to door assembly for specified operation.

3.7 ADJUSTING

3.6

.1 Adjust door assembly to smooth operation and in full contact with weatherstripping.

3.8 CLEANING

This article is intended to supplement cleaning requirements specified in Division 01 sections. Edit this article to supplement Division 01 statements.

- .1 Section 01 74 00: Cleaning installed work.
- .2 Clean only if or as required [frames] [doors] [polycarbonate][acrylic].
- .3 Clean with only a light horizontal motion using a soft nonabrasive cloth and mild dish soap with warm water for cleaning.
- .4 Remove [temporary] labels and visible markings.

3.9 PROTECTION OF FINISHED WORK

- .1 Section 01 78 40: Protecting installed work.
- .2 Do not permit construction traffic through overhead door openings after adjustment and cleaning.

END OF SECTION



SunView FULL VIEW GLASS DOORS





SunView Doors designed with you in mind.

SunView4517 based on the Sunshine Door design with the glass fitted into the aluminum. Profile is 1-3/4" tongue & groove.

SunView505 Traditional offers setback glazing in the colonial design with shiplap 1-3/4" rail design

SunView2 is a 2" thick full view glass and aluminum door with a heavy architectural design appeal, featuring full 6" end caps & top and bottom rails for a rich look in residential and strength and performance in commercial.



SunView FULL VIEW GLASS DOORS





SunView2 FULL VIEW GLASS DOORS





SunView2 Aluminum Doors designed with you in mind.


SunView2 FULL VIEW GLASS DOORS



The SunView Door is available in a selection of glazing options, aluminum colours, and size configurations.





8' – 9' Wide SunView Door						
	_					
10' & 12' Wide SunView Door						
14' & 16'	Wide Su	unView D	oor			

18' Wide SunView Door							



Standard Frame Colour lear Anodized Aluminu

Standard Frame Colour White Painted Aluminum



SunView2

Full View Aluminum & Glass Doors

• 2" Thick Full View Glass & Aluminum Doors

• Full 6" End Caps & Top and Bottom rails

- Double Bulb Weather Stripping Between Sections
 Interlocking Commercial Industrial Strength Aluminum
- Full Height Glazing Tower Fully Conceals Glass Edge Seal
- Snap in Glazing Stop with Integral Gasket Designed to Lock In



by the MANUFACTURER OF THE "ORIGINAL" SUNSHINE DOOR™



Manufactured by Sunshine Door Inc. 105, 33 McKenzie Crescent, Red Deer County, AB, CANADA T4S 2H4 For additional information, please contact Brian Kobialka (780) 722-8227 Brian@SunshineDoor.CA



2019-11-05

PRODUCT DESCRIPTION

Page 1

PRODUCT FEATURES

DESCRIPTION

- Sectional, glazed aluminum overhead doors.
- BASIC USES / RELATED USES
 - External overhead doors for commercial and industrial buildings, shops, car washes, car and RV dealerships and service bays, restaurants, parkades, etc.
- PRODUCT ATTRIBUTES AND CHARACTERISTICS
 - Aluminum Section Door 50mm (2") thick designed for commercial applications.
 - Glazing: Standard is 13 mm (1/2") thick, dual pane 3.2mm/3.2mm tempered/tempered glass.
 - High impact resistance.
 - High light transmittance.
 - High weather resistance.
 - Tempered Glass.
 - Options for Low E glass, Greylite glass, Bronze glass, etched obscure glass, all tempered.
 - Options for Single Pane Tempered glass.
 - Online Brochure: <u>www.sunshinedoor.com</u>
- APPLICABLE STANDARDS, RELATED REFERENCES
 - AAMA 2603-13 Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
 - ANSI/DASMA 102 2011 Specifications for Sectional Doors.
 - ASTM B117-11 Standard Practice for Operating Salt Spray (Fog) Apparatus
 - ASTM D523-14 Standard Test Method for Specular Gloss
 - ASTM D714-02(2009) Standard Test Method for Evaluating Degree of Blistering of Paints
 - ASTM D1308-02(2013) Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
 - ASTM D3363-05(2011)e2 Standard Test Method for Film Hardness by Pencil Test
 - ASTM D7091 13 Standard Practice for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nonconductive Coatings Applied to Non-Ferrous Metals



2019-11-05

Page 2

PRODUCT DESCRIPTION

- ASTM E84-14 Standard Test Method for Surface Burning Characteristics of Building Materials.
- PERFORMANCE CRITERIA
 - Maximum deflection of door in open (horizontal) position: $1/120^{\text{th}}$ of the door width.
 - Wind Loads: Comply with ANSI/DASMA 102.
- QUALITY STATEMENTS
 - Manufacturer qualifications:
 - The Original Sunshine Door Inc has been manufacturing for more than 20 years.
 - Member of International Door Association (IDA).
 - Member of Canadian Door Institute (CDI).
 - Member of Canadian Home Builders' Association (Central Alberta).
 - Member of Red Deer Chamber of Commerce.
 - Installer Qualifications: Minimum five years of documented experience, and approved by Sunshine Door Inc.
- PACKAGING, HANDLING AND STORAGE
 - Door sections should be carried and handled in the upright position, on edge. Carrying flat can result in damage.
 - Store in manufacture's unopened packaging until time of installation. Protect from moisture.
 - Store in dry weather tight location.
- WARRANTY
 - Five years in accordance with manufacturers tolerances, against discoloration, loss of light transmission and loss of strength due to weathering.
- AVAILABILITY
 - Direct from manufacturer.
 - Distributor: Contact Sunshine Door Inc., for a listing of distributors and installation dealers.
- COST
 - Consult manufacturer or distributor offices for specific product costs or relative costs.

PRODUCT PROPERTIES

- MATERIALS
 - Aluminum:
 - Extruded, 6063-T5, 2 mm thick, clear anodized. Options for black anodized aluminum,

2019-11-05

PRODUCT DESCRIPTION

white painted, and powder coated to RAL Classic colours. **Component Dimensions:** Door Thickness: 50mm (2") Top & Bottom Rails: 152.4mm (6") Intermediate Rails: 60mm (2-3/8") Vertical Stiles: 95.25mm (3-3/4") Glazing Leg: 19mm (3/4") Dual Pane 1/2" overall thickness Tempered / Tempered Glass thickness: 3.2mm Glass Type: Clear Float Glass Dual Pane 1/2" overall thickness

0 **Glazing:**

Standard: Tempered Glass

П Spacer Type: Thermally Improved Silicone Foam Super Spacer

Other Glazing Types: Tempered Glass Low E

Glass Type: AGC Comfort Select 73 Heat transfer coefficient: U-value 0.43 Solar Heat Gain Coefficient: 0.70 Light to Solar Gain: 1.06 Thermal Stress Risk: Low Tempered / Tempered Glass thickness: 3.2mm Glass Type: Clear Float Glass Spacer Type: Thermally Improved Silicone Foam Super Spacer

Other Glazing Types: Polycarbonate;

- Triple wall construction, 16 mm thick.
- Weight: 2.7 kg/m²
- Light transmittance:
 - Clear: 76%
 - Bronze: 50%
 - White: 20%
 - Grey: 18%
 - Blackberry: 52%
 - Blue: 64%
 - Green: (special order)
 - Red: (special order)
- UV Thickness: 60 micron
- Heat transfer coefficient (U-value): 2.4 W/m²/°K (0.42 BTU/hr·ft²·°F)
- Solar Heat Gain Coefficient (SHGC): 35% (based on 16mm triple wall clear)
- Coefficient of thermal expansion: 0.065 mm/m°C
- Weighted sound reduction index: 16 db П
- Tensile Strength: >=60 N/mm



Page 3

2019-11-05

PRODUCT DESCRIPTION

Page 4

- $\Box \qquad Flexural strength: 100 \text{ N/mm}^2$
- □ Modulus of elasticity: 2400 MPa
- \Box Tensile stress at break: >=65 MPa
- \Box Elongation at break: >100%
- □ Scratch resistant: Not anti-scratch.
- □ Recyclability 100%

Other Glazing Types: Acrylic;

- \square Dual wall, 16 mm (5/8 inch) thick, clear view wide port.
 - Light transmittance:

Clear 91%

Interconnecting walls every 2.5" for structural rigidity.

Weighted Sound Reduction Index at 22dB.

Thermal Performance u0.49 (R2.04)

Recyclability 100%

Fire Behaviour: C2 or CC2 according to ASTM D-635. It burns almost entirely without smoke according to DIN4102 and ASTMD-2843 and is easily extinguished. The ASTM D-1929 self ignition temperature is very high at 840degrees F, with a smoke density rating of 2.0%, being neither acutely toxic according to DIN53436 nor corrosive according to DIN VDE 0482-267.

• Other Glazing Types: Exterior Face Panel

□ Aluminum Sheet over Polycarbonate to Interior:

Aluminum sheet, 1.25 mm (0.050") thick facing to exterior, with polycarbonate backing.

Option for Aluminum sheet, 1.25 mm (0.050") thick, both sides with 50 mm (2 inch) rigid insulation between.)

• Glazing Method:

- □ Interior Heavy Extruded PVC Glazing Stop with minimum dual fin rubber gasket inserted and interlocked into aluminum stiles & rails.
- PVC Glazing Stop Colour to be Grey for Clear Anodized Aluminum & Black
 Anodized. PVC Glazing Stop to be White for White Painted Aluminum.
- □ Exterior Foam Glazing Tape adhesive both sides.

• SIZES

- Standard Widths:
 - Full door width up to 5.54 m (18 ft 2 in). Consult with manufacturer for wider.
 - Stile placement set per width size to ensure equal glass size widths.
- Standard Heights:
 - $\bullet \qquad 450 \text{ mm (18 inch) section.}$
 - **525** mm (21 inch) section.
 - $\bullet \qquad 610 \text{ mm (24 inch) section.}$





2019-11-05

PRODUCT DESCRIPTION

Page 5

- Full door height: maximum 4.88 m (16 ft).
- Sections for full door heights adjusted to ensure equal glass size heights.
- Custom widths and heights are available.
- Maximum overall size not to exceed 220 sq ft without manufacturers approval.
- Section Thickness:
 - 50mm (2 inches) as measured from interior to exterior face of rail.

• ACCESSORIES

- Operators, Locks: Provided by installation dealer.
- Weatherstripping:
 - Standard: Thermoplastic volcanizate (Santoprene 201-64)

• SHOP FABRICATION AND ASSEMBLY

- Aluminum and Glass door sections to be fully assembled at the factory prior to delivery.
- All Aluminum Rails and Stiles notched and fit together as interlocked prior to inserting fasteners to ensure dual strength at all intersections of aluminum components.
- Track, Counterbalance Spring, Hardware: Provided by dealer.

• FINISHES

- Aluminum Finish:
 - Clear anodized.
 - Black anodized.
 - Painted: White.
 - Powder Coated: Thermosetting acrylic powder coating (PPG Duracron), to AAMA 2603, standard or custom colours. Coating performance:
 - \Box Dry Film Thickness: 1.0 +/- 0.8 mil, to ASTM D7091.
 - \Box Gloss: High, medium and low gloss, to ASTM D523 (*a*) 60°.
 - □ Pencil Hardness: H minimum, to ASTM D3363.
 - \Box Cross Hatch Adhesion (1/16" wet and dry): Excellent no removal.
 - Direct Impact (1/10" distortion): Excellent no removal.
 - □ Acid Resistance: 15 minutes no attack, to ASTM D1308 (10% muriatic acid spot test).
 - \Box Alkali Resistance: 25 hours no attack.
 - Detergent Resistance: 72 hours, no attack (3% immersion @ 100°F)
 - □ Salt Spray Resistance: 1/16" maximum undercutting, to ASTM B117 (1500 hrs, 5% NaCl @ 100°F)
 - □ Humidity Resistance: Up to few #8 blisters maximum, to ASTM D714.
 - \Box Exterior Exposure: No loss of adhesion, maximum $8\Delta E$ color change, maximum



2019-11-05

PRODUCT DESCRIPTION

Page 6

6 chalk rating, $(1 \text{ yr } @ 45^{\circ}, \text{ south Florida}).$

PRODUCT PLACEMENT

• PREPARATION

- Ensure door opening is of correct size, square and plumb.
- Allow minimum headroom above frame opening height:
 - **5**0 mm (2") Track: 375 mm (15 inches)
 - 75 mm (3") Track: 450 mm (18 inches)

• STORAGE

- Store in a clean dry space with moderate temperature and low humidity.
- Store in a vertical position to prevent moisture, dust, or other contaminants from settling on the sections.
- Do not lay flat.
- Leave protective packaging in place until installation, with the exception of any adhesive packaging which must be removed within 30 days of manufacturing.
- Do not stack sharp, heavy, or abrasive items on nor against the Sunshine Door products.

• INSTALLATION

- Install overhead doors and track in accordance with approved shop drawings and manufacturer's printed instructions.
- Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance after installation.
- Anchor door assembly to wall and building using anchors for the proper weight and size of door as well as area wind load requirements.
- Securely brace door tracks suspended from structure. Support vertical lift track that breaks away from wall more than 300 mm (12") with angle to wall or structural members.
- Adjust hardware and moving parts to function smoothly so that doors operate easily. Adjust doors and seals to provide weather tight fit around entire perimeter.

• WASTE RECYCLING

- Aluminum and polycarbonate materials can be recycled.
- Aluminum and polycarbonate manufacturing waste is recycled by Sunshine Door Inc.



2019-11-05

PRODUCT DESCRIPTION

Page 7

MAINTENANCE INSTRUCTIONS AND PROCEDURES

- Standard cleaning practices for aluminum and glass surfaces apply.
- For Polycarbonate surfaces; Clean with solution of mild soap or household detergent and lukewarm water, using a soft cloth or sponge to loosen any dirt and grime. Dawn dish soap is highly regarded for cleaning polycarbonate surfaces.
- Rinse with cold water and dry with soft cloth to prevent spotting.
- Never use abrasive or highly alkaline cleaners on polycarbonate glazing.

Corporate Identification

Sunshine Door Inc. #105, 33 McKenzie Crescent Red Deer County, Alberta T4S 2H4 Phone: 403.356.9472 www.sunshinedoor.com

Contact : Brian Kobialka Email : <u>Brian@SunshineDoor.CA</u> Tel : (780) 722-8227

Classification and Filing

MasterFormat: 08 36 13 – Sectional Overhead Doors

OmniClass:

23-30 10 17 37 14 – Sectional Overhead Doors

UniFormat:

B2050 – Exterior Doors

This section includes aluminum glazed overhead sectional doors manufactured by Sunshine Doors Inc, with manual, chain or electric operation, with our without windows.

This section includes performance, proprietary, and descriptive type specifications; edit text to avoid conflicting requirements.

For more product information, contact Brian Kobialka (780) 722-8227 or *e-mail* <u>Brian@SunshineDoor.CA</u>, or visit <u>www.sunshinedoor.com</u>.

Part 1 General

1.1 SECTION INCLUDES

In this article, select the components or assemblies that are intended to be part of the content of this section and will not be included in other sections.

- .1 Aluminum overhead sectional door.
- .2 Glazing into aluminum sections.
- .3 Operating hardware and tracks.
- .4 [Manual] [Chain-Operated] [Electric] door operator.

1.2 RELATED SECTIONS

In this article, indicate those sections that inter-rely on this section. The listing below is only partial and should be edited to include those sections specific to the project that describe subjects or products that affect this section directly.

- .1 Section 05 50 00 Metal Fabrications: Steel [channel] opening frame.
- .2 Section 06 10 13 Wood Blocking and Curbing: Rough wood [blocking] [framing] for door opening.
- .3 Section 07 92 00 Joint Sealants: Perimeter sealant and backup materials.
- .4 Section 08 71 00 Door Hardware General: Cylinder locks.
- .5 Section 08 80 50 Glass and Glazing: Glass for door lights.
- .6 Division 26 Electrical: Electrical service connection to door controller.

1.3 REFERENCES

Edit this article after editing the rest of this section. Only list reference standards below, that are included within the text of this section, when edited for a project specification delete other references that do not apply.

- .1 AAMA 2603-13 Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
- .2 ANSI/DASMA 102 2011 Specifications for Sectional Doors.
- .3 ASTM B117-11 Standard Practice for Operating Salt Spray (Fog) Apparatus
- .4 ASTM D523-14 Standard Test Method for Specular Gloss



- .5 ASTM D714-02(2009) Standard Test Method for Evaluating Degree of Blistering of Paints
- .6 ASTM D1308-02(2013) Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
- .7 ASTM D3363-05(2011)e2 Standard Test Method for Film Hardness by Pencil Test
- .8 ASTM D7091 13 Standard Practice for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nonconductive Coatings Applied to Non-Ferrous Metals
- .9 ASTM E84-14 Standard Test Method for Surface Burning Characteristics of Building Materials.

1.4 SYSTEM DESCRIPTION

Use this article carefully; restrict statements to describe the combined result of the components used to assemble the system. Do not repeat statements made in the Section Includes article.

- .1 Panels: Aluminum frame panels with dual pane tempered glass glazing.
- .2 Lift Type: [Vertical lift] [Standard lift] [High lift] [Low headroom] operating style with track and hardware.
- .3 Operation: [Electric] [Pneumatic] [Chain hoist] [Manual pull], counter-balanced..
- .4 Loads: Design and size components to withstand dead and live loads caused by pressure and suction of wind acting normal to plane of wall as measured in accordance with ANSI/DASMA 102.

1.5 SUBMITTALS FOR REVIEW

Do not request submittals if this specification section or drawings sufficiently describe the products of this section or if proprietary specifying is used. This requested review of submittals increases the possibility of unintended variations to the contract documents, thus increasing a consultant's liability. The following submittals are intended for review to determine eligibility for the project.

- .1 Section 01 33 00: Submission procedures.
- .2 Shop Drawings: Indicate opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, installation details and [____].
- .3 Product Data: Provide component construction, anchorage method, hardware, and [___].

Include the following paragraph for submission of physical samples for selection of finish, colour, texture, etc.

.4 Samples: Subject to client request, submit [two (2)], aluminum and glass panel samples, [<[___] mm><<[___] inch>>] in size, illustrating colour and finish.

1.6 SUBMITTALS FOR INFORMATION

The following submittals are for information only; do not request these submittals if the information submitted will be assessed for acceptability.

.1 Section 01 33 00: Submission procedures.



When manufacturer's written instructions for specific installation requirements are referenced in Part 3 Execution, include the following request for submittal of those instructions. Edit the Part 3 statements to avoid conflict with manufacturer's written instructions.

.2 Installation Data: Manufacturer's special installation requirements, special procedures, perimeter conditions requiring special attention, and [____].

1.7 CLOSEOUT SUBMITTALS

The following submittals are for project closeout purposes; do not request these submittals if the information submitted will be assessed for acceptability.

- .1 Section 01 78 10: Submission procedures.
- .2 Operation and Maintenance Data:
 - .1 Include electrical control adjustments and [____].
 - .2 Include data for [transmission] [motor] [shaft and gearing], lubrication frequency, spare part sources.

Coordinate the following paragraph with the WARRANTY article.

.3 Warranty Documentation: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.8 QUALITY ASSURANCE

This article includes statements that require quality applicable to the whole section. If it is desirable or required for a manufacturer of a product to be certified, include such statement below.

- .1 Products of This Section: Provide all Products and components specified in this section from one manufacturer.
- .2 Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum [ten (10)] years [documented] experience.
- .3 Installer Qualifications: Company specializing in performing the work of this section with minimum [five (5)] years documented experience and approved by the manufacturer.

1.9 REGULATORY REQUIREMENTS

Only include this article when required by applicable code criteria.

- .1 Conform to applicable code for motor and motor control requirements.
- .2 Products Requiring Electrical Connection: Listed and classified by [testing firm acceptable to the authority having jurisdiction] [CSA] [UL] as suitable for the purpose specified.

1.10 DELIVERY, STORAGE AND HANDLING

- .1 Door sections should be carried and handled in the upright position, on edge. Carrying flat may result in damage.
- .2 Store in manufacture's unopened packaging until time of installation. Protect from moisture.



.3 Store in dry weather tight location.

1.11 WARRANTY

- .1 Section 01 78 10: Warranties.
- .2 Warranty: Manufacturer's five (5) year warranty against materials and workmanship of door sections.
 - .1 Include coverage of glass units against failure or defect, but not breakage or surface damage.
 - .2 Provide [one (1)] year manufacturer warranty for electric operating equipment.

Part 2 Products

2.1 MANUFACTURERS

.1 The SunView2 Door, manufactured by Sunshine Door Inc. #105, 33 McKenzie Crescent Red Deer County, Alberta T4S 2H4 Phone: 403.356.9472 www.sunshinedoor.com

> Contact : Brian Kobialka Email : <u>Brian@SunshineDoor.CA</u> Tel : (780) 722-8227

.2 Supply Source:

Authorized Supply Only Dealers & Distributors Authorized Supply & Install Dealers & Distributors Contact Sunshine Door Inc for local dealer references.

.3 Substitutions: Not permitted .

2.2 MATERIALS

- .1 Aluminum: Extruded, 6063-T5, 2 mm thick, 4 mm thick at hinge fastening locations.
- .2 Glazing:
 - .1 Dual Pane Thermal Sealed Unit Glazing.
 - .1 Glass composition; Clear Tempered Glass 3mm thickness, Thermally Improved 1/4" Spacer, Clear Tempered Glass 3mm thickness.
 - .2 Thermal U-value 0.480 (R2.084), Solar Heat Gain 0.760, and Visible Light Transmittance 81%.
 - .3 Energy Improvement options: AGC Comfort Select 73 Tempered, U-value 0.33 or Solarban 60 Tempered [as selected].
- .3 Glazing gasket:
 - .1 Exterior foam tape 1/8" x 1/2" adhesive both sides.
- .4 Glazing Stop:



- .1 Extruded closed structure PVC Grey minus 50% to coordinate with Clear Anodized Aluminum, or White PVC for coordination with White aluminum, Grey with Black Anodized aluminum [as selected].
- .2 Dual fin rubber gasket inserted into the PVC glazing stop to provide seal between glass and the interior stop.
- .3 Glazing stop must snap into aluminum profile under compression.
- .5 Aluminum Finish: [Clear Anodized] [Black Anodized] [Painted white] [Thermosetting acrylic powder coating to AAMA 2603, PPG Duracron, colour [as selected]].
- .6 Weatherstripping:
 - .1 Glazing: Thermoplastic vulcanizate, polyolefin based, recyclable. Santoprene 201-64.
 - .2 Between sections: Bulb weatherstripping, factory installed.

2.3 PANEL CONSTRUCTION

.1 Stiles and rails: Extruded aluminum frame stiles and rails, minimum 2 mm thick, and 4 mm thick at hardware fastening locations.

Select from the following panel configurations; delete inappropriate paragraphs. Maximum sizes, for reference: Maximum panel width (anodized or painted aluminum): 711 mm (28 inch). Maximum panel length (mill finish): 6.1 m (20 ft) x 711 mm (28 inch). Section weight: 3 N/sq m (4 lb/sq ft).

- .2 Panels:
 - .1 Glazing Panels: Dual Pane Tempered Glass at 1/2" overall sealed unit thickness.
 - .2 Infill Panels: Aluminum sheet not less than 0.040 thickness both sides, with 13 mm (1/2 inch) rigid insulation between.
 - .3 Door Nominal Thickness: 50.8 mm, (2 inches) thick.
 - .4 End Caps: One piece 6" exterior face profile as one piece to provide structure and accommodate double end hinges as may be required.
 - .5 Bottom and Top Rails: Top and bottom of door to have one piece 6" exterior face profile to match end caps.
 - .6 Vertical Stiles: Exterior face profile of vertical stiles to be 95mm (3.75 inches) and must be interlocked with the horizontal rails at a dept of not less than 19mm (0.75 inches) to ensure structure.
 - .7 Horizontal Rails: Exterior Horizontal rail profile to be not less than 60mm (2 3/8 inches) per each rail, resulting in an exterior horizontal of 120mm (4 3/4 inches).
 - .8 Glazing Legs: All Exterior Glazing Legs must be integral to the stiles, rails, and end caps, and must measure not less than 19mm (3/4 inches).

2.4 HARDWARE COMPONENTS

Hardware to be supplied by the installation contractor. Recommended hardware is as manufactured by AssaAbloy hardware manufacturing division, FlexiForce in Abbotsford BC, and distributed by Entrematic.



Specify 2.0 mm (12 gauge) thick and 75 mm (3 inch) wide track where required to maintain performance requirements for doors larger than 9.3 sq m (100 sq ft). Refer to manufacturer's recommendations.

- .1 Track: Rolled galvanized steel, [<1.3 mm><<16 gauge>>] [<2.0 mm><<12 gauge>>] thick; [<75 mm><<3 inch>>] [<50 mm><<2 inch>>] wide, continuous one piece per side; galvanized steel mounting brackets [<1.6 mm><<14 gauge>>] thick.
- .2 Hinge and Roller Assemblies: Heavy duty hinges and adjustable roller holders of [stainless steel] [galvanized steel]; floating hardened steel bearing rollers, located at top and bottom of each panel, each side.
- .3 Lift Mechanism: Torsion spring on cross head shaft, with braided galvanized steel lifting cables. Manual operation with maximum exertion of [<110 N><<25 lbs>>], force.

Coordinate this operator clause with other clauses. Delete electrical and control criteria if manual or chain operated.

- .4 Operator: [Manual] [Chain] [Electric] [Pneumatic].
- .5 Sill Weatherstripping: Fit to bottom of door panel, full length contact.
- .6 Jamb Weatherstripping: Place full height of jamb, in moderate contact with door panels.
- .7 Head Weatherstripping: One piece full length, fixed to top section.
- .8 Panel Joint Weatherstripping: One piece full length, bulb weather stripping.

In the following paragraph, a locking door is usually associated with manually operated door assemblies; an electric disconnect is usually used with electric door assemblies.

.9 Lock: Inside [centre] [side] mounted, adjustable keeper, spring activated latch bar with feature to retain in locked or retracted position; [interior] [exterior] handle; lock [master keyed] [keyed differently] [keyed to Section 08 71 00] [keyed alike].

ELECTRICAL CHARACTERISTICS AND COMPONENTS

Include and edit this article for electric operation. Select one or more of the following subparagraphs appropriate to the equipment requirements.

- .1 Electrical Characteristics:
 - .1 [<250 W><<1/3 hp>>] [<375 W><<1/2 hp>>], [[____] rated load amperes]; manually operable in case of power failure, transit speed of [<300 mm><<12 inches>>], per second.
 - .2 [___] volts, [single] [three] phase, 60 Hz.
 - .3 [___] amperes maximum [overcurrent protection] [circuit breaker size] [fuse size]. [[____] minimum circuit capacity].
 - .4 [____] percent minimum power factor at rated load.
 - .5 Refer to Section 26 05 80 Equipment Wiring: Electrical connections.

NEMA Type 1 is General Purpose, Type 4 is Totally Enclosed.

.2 Motor: [CAN/CSA C22.2 No. 100] [Refer to Section 23 05 13] [NEMA MG1, Type [____]].



2.5

- .3 Wiring Terminations: Provide terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated. Enclose terminal lugs in terminal box sized to NFPA 70.
- .4 Disconnect Switch: Factory mount disconnect switch [on equipment to Section 26 05 80] [in control panel].
- .5 Electric Operator:
 - .1 [Side mounted on cross head shaft] [Centre mounted draw bar assembly] [Centre mounted on cross head shaft], adjustable safety friction clutch.
 - .2 Brake system actuated by independent voltage solenoid controlled by motor starter; enclosed gear driven limit switch; enclosed magnetic cross line reversing starter; mounting brackets and hardware.

Select and edit one of the following two paragraphs. Select type and quantity of control stations when specifying electric motors.

- .6 Control Station:
 - .1 Standard [one (1)] [three (3)] button (open-close-stop) [momentary] [continuous pressure] type, control for each electric operator; [24] volt circuit, [recessed] [surface mounted].
 - .2 Include key operated switch located [at exterior location indicated] [inside door jamb].

Expand the following paragraph with text description appropriate to project requirements when applicable.

.7 Interconnection to Security System: [____].

Select and expand one or more of the following three paragraphs with text description appropriate to project requirements.

.8 Radio Control Antenna Detector: [____].

.9 [Loop Detector] [Treadle]: [____].

- .10 Hand Held Transmitter: Digital control, resettable.
- .11 Safety Edge: At bottom of door panel, full width; [electro-mechanical] sensitized type, wired to [stop] [reverse] door upon striking object; hollow [rubber] [neoprene] covered to provide weatherstrip seal.

2.6 FINISHES

Select and edit only the following paragraphs that apply. Sunshine Door produce standard powder coated door panels, and uncoated (galvanized) hardware and track.

- .1 Door Panels:
 - .1 [Clear anodized] [Black anodized] [Painted white] [Precoat with thermosetting acrylic finish, or [powder coated RAL standard colour] [clear] [as selected]].
- .2 Track: [Uncoated] [as selected].
- .3 Hardware: [Uncoated] [as selected].



Part 3 Execution

3.1 EXAMINATION

- .1 Section 01 70 00: Verify existing conditions before starting work.
- .2 Verify that wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
- .3 Verify that electric power is available and of the correct characteristics.

3.2 PREPARATION

- .1 Prepare opening to permit correct installation of door unit to perimeter air and vapour barrier seal.
- .2 Apply primer to wood frame.

3.3 STORAGE

- .1 Store in a clean dry space with moderate temperature and low humidity.
- .2 Store in a vertical position to prevent moisture, dust, or other contaminants from settling on the sections.
- .3 Do not lay flat.
- .4 Leave protective packaging in place until installation, with the exception of any adhesive packaging which must be removed within 30 days of manufacturing.
- .5 Do not stack sharp, heavy, or abrasive items on nor against the Sunshine Door products.

3.4 INSTALLATION

Only include the following paragraph if a manufacturer actually publishes installation instructions many do not. If the manufacturer does NOT publish such a document, ensure all install criteria that is important to the project, is specified below.

- .1 Install door unit assembly to manufacturer written instructions.
- .2 Anchor assembly to wall construction and building framing without distortion or stress.
- .3 Securely brace door tracks suspended from structure. Secure tracks to structural members only.
- .4 Fit and align door assembly including hardware.
- .5 Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components. Final connection of electrical service to be performed by qualified personnel.
- .6 Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07 92 00.
- .7 Install [perimeter trim] [closures].

3.5 ERECTION TOLERANCES

Do not assume that there are industry standards for tolerances. Specify tolerances below as appropriate to the nature or character of the project. Verify that such tolerances are realistic and realizable.



- .1 Section 01 73 00: Tolerances.
- .2 Maximum Variation from Plumb: [<1.5 mm><<1/16 inch>>].
- .3 Maximum Variation from Level: [<1.5 mm><<1/16 inch>>].
- .4 Longitudinal or Diagonal Warp: Plus or minus [<3 mm><<1/8 inch>>], from [<3 m><<10 ft>>] straight edge.
- .5 Maintain dimensional tolerances and alignment with adjacent work.

3.6 MANUFACTURER'S FIELD SERVICES

This article is included to assist in field quality control of work being installed. The legal affect of this type of article is questionable and will not relieve the design professional of legal responsibility for the work described in this section. Specify with some measure of caution.

- .1 Section 01 78 10: Prepare and start components.
- .2 Ensure the operation and adjustments to door assembly for specified operation.

3.7 ADJUSTING

.1 Adjust door assembly to smooth operation and in full contact with weatherstripping.

3.8 CLEANING

This article is intended to supplement cleaning requirements specified in Division 01 sections. Edit this article to supplement Division 01 statements.

- .1 Section 01 74 00: Cleaning installed work.
- .2 Clean only if or as required.
- .3 Clean with only a light horizontal motion using a soft nonabrasive cloth and mild dish soap with warm water for cleaning.
- .4 Remove [temporary] labels and visible markings.

3.9 PROTECTION OF FINISHED WORK

- .1 Section 01 78 40: Protecting installed work.
- .2 Do not permit construction traffic through overhead door openings after adjustment and cleaning.

END OF SECTION





WARRANTY

Sunshine Door Inc. provides a limited warranty of five (5) years for defects in material, components and workmanship of the Sunshine Door products in normal installation and usage (sections only).

This warranty covers all Sunshine Door products, including the "Original" Sunshine Door, SunView Doors, and Speed of Light Doors.

Polycarbonate & Acrylic Glazing is covered by a 5 year warranty against excessive fading, cracking, pealing, or excessive discolouration.

Glass is covered by a limited 1 year warranty against failure of the seal. Glass is not covered against breakage.

Aluminum extruded stile and rail components are covered by a 10 year structural warranty and 5 years against excessive discolouration, fading, cracking, peeling, or corrosion in normal weather exposure environments.

Aluminum Premium Face Panels & Steel PrePainted Face Panels are covered by a limited 1 year warranty against excessive fading, cracking, pealing, or discolouration.

Powder Coated Finishes and Special Wood Grain Powder Coat Finishes are covered by a limited 2 year warranty against excessive fading, cracking, pealing, or discolouration.

Weather Seals and Gaskets are warranted for 5 years against failure.

The warranty does not cover special modifications, custom orders, nor adverse effects of installation.

This warranty does not cover scuffs and scratches, nor damage from impact, drop, incorrect handling or operation, hail, extreme weather, exposure to excessive heat, moisture, chemicals, etc....

This warranty does not cover reimbursement for material, labour, and equipment used for replacement of the warranted product, nor does it cover disposal of the warranted product. The manufacturer, Sunshine Door Inc., may request return of the removed product and reserves the right to charge for the replacement product and thus refund that amount upon receipt of the product being replaced.

No other warranties, special conditions, whether written, or oral, expressed or implied shall supersede this warranty.

Replacement parts shall be supplied at the manufacturer's discretion, FOB the Sunshine Door Inc factory in Red Deer County, Alberta, Canada.







Sunshine Doors were developed as commercial industrial doors. Now as the strength, durability, natural lighting benefits, and design flexibility is realized by so many, the popularity continues to grow across all markets.

More information and customization available. Distributed by:

Manufactured in CANADA, Red Deer, Alberta Phone: 403.356.9472 www.SunshineDoor.com



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