Certificate of Compliance

Certificate:	80165161	**Master Contract:**	303534
Project:	80238206	**Date Issued:**	2025-04-18
Issued to:	**GUANGZHOU APRO BUILDING MATERIAL CO., LTD** **NO.9 OF 66 HUA GANG AVENUE** **HUA DU DISTRICT** **GUANGZHOU, Guangdong** **510815** **China** **Attention:** Jason Lau	**Issued by:**	*Lucas Yang* Lucas Yang

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.

PRODUCTS

Class 8029 12 BUILDING PRODUCTS AND MATERIALS - Windows (Harmonized Standard)
Class 8029 13 BUILDING PRODUCTS AND MATERIALS - Sliding Doors (Harmonized Standard)
Class 8029 14 FACTORY CONSTRUCTED BUILDINGS AND STRUCTURES - Folding Door Systems (Harmonized Standard)
Class 8029 82 FACTORY CONSTRUCTED BUILDINGS AND STRUCTURES - Windows to the US (NAFS Harmonized Standard)
Class 8029 83 FACTORY CONSTRUCTED BUILDINGS AND STRUCTURES - Sliding Doors to the US (NAFS Harmonized Standard)
Class 8029 84 FACTORY CONSTRUCTED BUILDINGS AND STRUCTURES - Folding Door Systems to the US (NAFS Harmonized Standard)

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Aluminum Windows certified to the Harmonized Standard AAMA/WDMA/CSA 101/1.S.2/A440-17 & CSA A440S1:19 under class 8029 12/82:

Model(s)	Primary product designator	Positive Design Pressure (Pa (psf))	Negative Design Pressure (Pa (psf))	Water Penetration Resistance Test Pressure (Pa (psf))
A80T Series Tilt & Turn window and Fixed window - Combination assembly	Class CW-PG40: Size Tested 1200mm × 1800mm (47.24in. × 70.87in.) - Type DAW	1920 (40.10)	-1920 (-40.10)	290 Pa (6.06)
	Class CW-PG40: Size Tested 1500mm × 1800mm (59.06in. × 70.87in.) - Type FW	1920 (40.10)	-1920 (-40.10)	290 Pa (6.06)

Aluminum sliding door certified to the Harmonized Standard AAMA/WDMA/CSA 101/1.S.2/A440-17 & CSA A440S1:19 under class 8029 13/83:

Model(s)	Primary product designator	Positive Design Pressure (Pa (psf))	Negative Design Pressure (Pa (psf))	Water Penetration Resistance Test Pressure (Pa (psf))
A140T series Lift & Sliding Door	Class CW-PG40: Size Tested 2400mm × 2100mm (94.49in. × 82.68in.) - Type SD	1920 (40.10)	-1920 (-40.10)	290 Pa (6.06)

Aluminum folding door certified to the Harmonized Standard AAMA/WDMA/CSA 101/1.S.2/A440-17 & CSA A440S1:19 under class 8029 14/84:

Model(s)	Primary product designator	Positive Design Pressure (Pa (psf))	Negative Design Pressure (Pa (psf))	Water Penetration Resistance Test Pressure (Pa (psf))	Canadian Air Infiltration/ Exfiltration Level
A68T series Folding Door (Type D 2L-2R)	Class CW-PG40: Size Tested 2600mm × 2100mm (102.36in. × 82.68in.) - Type FLD	1920 (40.10)	-1920 (-40.10)	290 Pa (6.06)	A3 Level

Thermal performance to CSA Standard A440.2:19 under class 8029 12:

Model(s)
A80T Series Tilt & Turn Window

A80T Series Tilt & Turn

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Mft Product Code	6mm_1 21/32_XDTN179#2-arg90-XDTN179#4-arg90-CLR	6mm_1_XDTN179#2-arg95-CLR	6mm_1_XDTN0187#2-arg95-CLR	6mm_1_PDE59B#2-arg95-CLR	6mm_1_PDE80A02#2-arg95-CLR
Product Number	001	002	003	004	005
Gap1 (mm)	11.99	15.60	15.60	15.60	15.60
Gap2 (mm)	11.99	-	-	-	-
Gap3 (mm)	-	-	-	-	-
Gap fill 1	ARG	ARG	ARG	ARG	ARG
Gap fill 2	ARG	-	-	-	-
Gap fill 3	-	-	-	-	-
Emissivity Surface 2	0.048	0.048	0.094	0.040	0.034
Emissivity Surface 3	-	-	-	-	-
Emissivity Surface 4	0.048	-	-	-	-
Emissivity Surface 5	-	-	-	-	-
Emissivity Surface 6	-	-	-	-	-
Emissivity Surface 7	-	-	-	-	-
Tint	CL	CL	CL	GY	CL
Spacer	A1-D	TS-D	TS-D	TS-D	TS-D
Grid Type	N	N	N	N	N
Grid Size	-	-	-	-	-
U-Factor (W/m^2-K)	**1.63**	**1.83**	**1.89**	**1.81**	**1.81**
SHGC	0.25	0.31	0.40	0.21	0.28
VT	0.41	0.51	0.54	0.37	0.49
Air Infiltration (L/S- m^2)	0.02	0.02	0.02	0.02	0.02
Air Exfiltration (L/S- m^2)	0.02	0.02	0.02	0.02	0.02
ER	**19**	**18**	**22**	**12**	**17**

A80T Series Tilt & Turn (New glazing option-VIG)	
Mft Product Code	6-6-6-6_XDTN0179#1-vac-Clr-arg90-XDTN0179#5-vac-Clr, ms
Product Number	006
Gap1 (mm)	0.3
Gap2 (mm)	12.0

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Gap3 (mm)	0.3
Gap fill 1	VIG
Gap fill 2	ARG
Gap fill 3	VIG
Emissivity Surface 1	0.048
Emissivity Surface 5	0.048
Tint	CL
Spacer	TS-D
Grid Type	N
Grid Size	-
U-Factor (W/m2-K)	**1.31**
SHGC	0.23
VT	0.37
Air Infiltration (L/S- m2)	0.02
Air Exfiltration (L/S- m2)	0.02
ER	**25**

Model(s)
A80T Series Fixed window

A80T Series Fixed window					
Mft Product Code	6mm_1 21/32_XDTN179#2-arg90-XDTN179#4-arg90-CLR	6mm_1_XDTN179#2-arg95-CLR	6mm_1_XDTN0187#2-arg95-CLR	6mm_1_PDE59B#2-arg95-CLR	6mm_1_PDE80A02#2-arg95-CLR
Product Number	001	002	003	004	005
Gap1 (mm)	11.99	15.60	15.60	15.60	15.60
Gap2 (mm)	11.99	-	-	-	-
Gap3 (mm)	-	-	-	-	-
Gap fill 1	ARG	ARG	ARG	ARG	ARG
Gap fill 2	ARG	-	-	-	-
Gap fill 3	-	-	-	-	-
Emissivity Surface 2	0.048	0.048	0.094	0.040	0.034
Emissivity Surface 3	-	-	-	-	-
Emissivity Surface 4	0.048	-	-	-	-
Emissivity Surface 5	-	-	-	-	-

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Emissivity Surface 6	-	-	-	-	-
Emissivity Surface 7	-	-	-	-	-
Tint	CL	CL	CL	GY	CL
Spacer	A1-D	TS-D	TS-D	TS-D	TS-D
Grid Type	N	N	N	N	N
Grid Size	-	-	-	-	-
U-Factor (W/m^2-K)	**1.22**	**1.75**	**1.82**	**1.73**	**1.72**
SHGC	0.29	0.35	0.47	0.24	0.32
VT	0.48	0.60	0.63	0.43	0.57
Air Infiltration (L/S- m^2)	0.01	0.01	0.01	0.01	0.01
Air Exfiltration (L/S- m^2)	0.01	0.01	0.01	0.01	0.01
ER	**30**	**22**	**27**	**16**	**21**

A80T Series Fixed window (New glazing option-VIG)	
Mft Product Code	6-6-6-6_XDTN0179#1-vac-Clr-arg90-XDTN0179#5-vac-Clr, ms
Product Number	006
Gap1 (mm)	0.3
Gap2 (mm)	12.0
Gap3 (mm)	0.3
Gap fill 1	VIG
Gap fill 2	ARG
Gap fill 3	VIG
Emissivity Surface 1	0.048
Emissivity Surface 5	0.048
Tint	CL
Spacer	TS-D
Grid Type	N
Grid Size	-
U-Factor (W/m2-K)	**1.14**
SHGC	0.27
VT	0.43
Air Infiltration (L/S- m2)	0.01
Air Exfiltration (L/S- m2)	0.01
ER	**31**

Thermal performance to CSA Standard A440.2:19 under class 8029 13:

Model(s)
A140T series Lift & Sliding Door

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A140T series Lift & Sliding Door					
Mft Product Code	6mm_1 21/32_XDTN179#2-arg90-XDTN179#4-arg90-CLR	6mm_1_XDTN179#2-arg95-CLR	6mm_1_XDTN0187#2-arg95-CLR	6mm_1_PDE59B#2-arg95-CLR	6mm_1_PDE80A02#2-arg95-CLR
Product Number	001	002	003	004	005
Gap1 (mm)	11.99	15.60	15.60	15.60	15.60
Gap2 (mm)	11.99	-	-	-	-
Gap3 (mm)	-	-	-	-	-
Gap fill 1	ARG	ARG	ARG	ARG	ARG
Gap fill 2	ARG	-	-	-	-
Gap fill 3	-	-	-	-	-
Emissivity Surface 2	0.048	0.048	0.094	0.040	0.034
Emissivity Surface 3	-	-	-	-	-
Emissivity Surface 4	0.048	-	-	-	-
Emissivity Surface 5	-	-	-	-	-
Emissivity Surface 6	-	-	-	-	-
Emissivity Surface 7	-	-	-	-	-
Tint	CL	CL	CL	GY	CL
Spacer	A1-D	TS-D	TS-D	TS-D	TS-D
Grid Type	N	N	N	N	N
Grid Size	-	-	-	-	-
U-Factor (W/m^2-K)	**1.81**	**2.33**	**2.39**	**2.32**	**2.31**
SHGC	0.25	0.31	0.41	0.21	0.28
VT	0.41	0.52	0.55	0.37	0.49
Air Infiltration (L/S- m^2)	0.19	0.19	0.19	0.19	0.19
Air Exfiltration (L/S- m^2)	0.24	0.24	0.24	0.24	0.24
ER	**14**	**06**	**11**	**01**	**05**

A140T series Lift & Sliding Door (New glazing option-VIG)	
Mft Product Code	6-6-6-6_XDTN0179#1-vac-Clr-arg90-XDTN0179#5-vac-Clr, ms

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Product Number	006
Gap1 (mm)	0.3
Gap2 (mm)	12.0
Gap3 (mm)	0.3
Gap fill 1	VIG
Gap fill 2	ARG
Gap fill 3	VIG
Emissivity Surface 1	0.048
Emissivity Surface 5	0.048
Tint	CL
Spacer	TS-D
Grid Type	N
Grid Size	-
U-Factor (W/m2-K)	**1.79**
SHGC	0.24
VT	0.38
Air Infiltration (L/S- m2)	0.19
Air Exfiltration (L/S- m2)	0.24
ER	**14**

Thermal performance to CSA Standard A440.2:19 under class 8029 14:

Model(s)
A68T series Folding Door (Type D 2L-2R)

A68T series Folding Door					
Mft Product Code	6mm_1 21/32_XDTN179#2-arg90-XDTN179#4-arg90-CLR	6mm_1_XDTN179#2-arg95-CLR	6mm_1_XDTN0187#2-arg95-CLR	6mm_1_PDE59B#2-arg95-CLR	6mm_1_PDE80A02#2-arg95-CLR
Product Number	001	002	003	004	005
Gap1 (mm)	8.99	19.406	19.406	19.406	19.406
Gap2 (mm)	8.99	-	-	-	-
Gap3 (mm)	-	-	-	-	-
Gap fill 1	ARG	ARG	ARG	ARG	ARG
Gap fill 2	ARG	-	-	-	-
Gap fill 3	-	-	-	-	-
Emissivity Surface 2	0.048	0.048	0.094	0.040	0.034

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Emissivity Surface 3	-	-	-	-	-
Emissivity Surface 4	0.048	-	-	-	-
Emissivity Surface 5	-	-	-	-	-
Emissivity Surface 6	-	-	-	-	-
Emissivity Surface 7	-	-	-	-	-
Tint	CL	CL	CL	GY	CL
Spacer	A1-D	TS-D	TS-D	TS-D	TS-D
Grid Type	N	N	N	N	N
Grid Size	-	-	-	-	-
U-Factor (W/m^2-K)	**1.93**	**2.30**	**2.36**	**2.29**	**2.28**
SHGC	0.25	0.31	0.40	0.21	0.28
VT	0.40	0.50	0.53	0.36	0.48
Air Infiltration (L/S- m^2)	0.03	0.03	0.03	0.03	0.03
Air Exfiltration (L/S- m^2)	0.04	0.04	0.04	0.04	0.04
ER	**12**	**08**	**11**	**02**	**06**

A68T series Folding Door (New glazing option-VIG)	
Mft Product Code	6-6-6-6_XDTN0179#1-vac-Clr-arg90-XDTN0179#5-vac-Clr, ms
Product Number	006
Gap1 (mm)	0.3
Gap2 (mm)	12.0
Gap3 (mm)	0.3
Gap fill 1	VIG
Gap fill 2	ARG
Gap fill 3	VIG
Emissivity Surface 1	0.048
Emissivity Surface 5	0.048
Tint	CL
Spacer	TS-D
Grid Type	N
Grid Size	-
U-Factor (W/m2-K)	**1.79**
SHGC	0.23
VT	0.37
Air Infiltration (L/S- m2)	0.03
Air Exfiltration (L/S- m2)	0.04

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ER	**14**

APPLICABLE REQUIREMENTS

AAMA/WDMA/CSA 101/1.S.2/A440-17 - North American Fenestration Standard/ Specification for windows, doors, and skylights

CSA A440S1:19 - Canadian Supplement to AAMA/WDMA/ CSA 101/I.S.2/A440-17, North American Fenestration Standard/Specification for windows, doors, and skylights

CSA A440.2:19 - Fenestration Energy performance

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Notes:

Products certified under Class(es) C802912, C802913 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca

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Supplement to Certificate of Compliance

Certificate: 80165161 **Master Contract:** 303534

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80238206	2025-04-18	Update report 80165161 to add a glazing option (with vacuum layer) for certified models for energy performance in accordance with CSA A440.2:19. Models: A80T Series Tilt & Turn Window, A80T Series Fixed Window, A140T series Lift & Sliding Door, A68T series Folding Door.
80208487	2024-07-03	Update report 80165161 to add glazing options for certified models for energy performance in accordance with CSA A440.2:19.
80192870	2024-01-22	Update report 80165161 to add US certification of physical performance to all existing certified models as per NAFS harmonized standard AAMA/WDMA/CSA 101/1.S.2/A440-17.
80165161	2023-09-26	Certification of aluminum windows and doors, models: A80T Series Tilt & Turn window and Fixed window - Combination assembly, A140T series Lift & Sliding Door, A68T series Folding Door.

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