

FLORIDA BUILDING CODE & MIAMI-DADE APPROVED STORM CLASS™ LOUVER

Louver Type	SCC550MD
Material Ext	ruded Aluminum (Alloy 6005-T5)
Front Blade	0.081 in. (2.06 mm)
Back Blade	0.050 in. (1.27 mm)
Frame	0.081 in. (2.06 mm)
	5.50 in. (139.7 mm)
Free Area – 4 ft. x 4 ft. Unit	8.02 sq. ft. (0.75 m ²)
Percent Free Area	50%
Free Area Velocity at Beginr Point of Water Penetration 0.01 oz H ₂ O/sq. ft. Free Area	
Air Volume Flow Rate at Beginning Point of Water Penetration – 4 ft. x 4 ft. Ur	nit 8,686 cfm (4.10 m ³ /s)
Pressure Drop at Beginning Point of Water Penetration	0.44 in. H ₂ O (0.109 kPa)
Wind-Driven Rain W	later Penetration Data
Rainfall Rate	

Effectiveness	
Exterior Wind Velocity50 mph (22 m/Rainfall Rate8 in. (200 mm)/hoEffectiveness99.5Core Ventilation Rate980 fpm (5.0 m/	our %

Note: AMCA performance above is for visible jambs only. See pages 6 & 7 for complete performance data.

RECOMMENDED SPECIFICATION

GENERAL

Furnish and install where indicated on plans or described in schedules Storm Class[™] (TM) Louver Type SCC550MD as designed and manufactured by The Airolite Company LLC, Schofield, Wisconsin. Louvers shall be Florida Building Code and Miami-Dade approved for use where the room behind the louver is NOT designed to drain water penetrating into the room or the room will house non-water resistant or water proof equipment, components or supplies. Louvers shall be furnished with bird screen, insect screen, supports, installation hardware and finishes as specified and as required for a complete installation.

SUBMITTALS

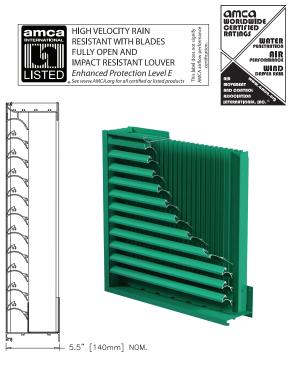
Manufacturer shall submit shop drawings incorporating key plans, elevations, sections and details showing profiles, angles and spacing of louver blades and frames; unit dimensions related to wall openings and construction; and, anchorage details and locations. For each type of product specified, submit free areas, air performance, water penetration and wind driven rain ratings determined in accordance with AMCA Standard 500-L and licensed under the AMCA Certified Ratings Program, as well as tested in accordance with AMCA 540 Test Method for Louvers Impacted by Wind Borne Debris and AMCA 550 Test Method for High Velocity Wind Driven Rain. Include Florida Product Approval or Miami-Dade Notice of Acceptance to demonstrate compliance with applicable building code. Provide samples of manufacturer's finish and color charts showing the full range of colors available.

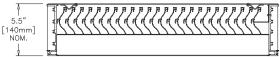
PRODUCTS

Louvers shall be Storm Class[™] type and rated to resist water penetration under wind-driven rain conditions. Louvers shall be 5.5-inches

LOUVER TYPE

Florida Product Approval No.: FL30298 Miami-Dade, FL NOA No.: 19-0430.04, EXP. 08/15/2024 AMCA 540 and 550 Listed





(139.7 mm) deep and assembled entirely from extruded aluminum components. Exterior blades and frames shall be 0.081-inch (2 mm) thick extruded aluminum, alloy 6005-T5. Interior blades shall be 0.050-inch (1.27 mm) extruded aluminum, alloy 6005-T5. Exterior blades shall be horizontal and spaced 1.9-inches (48 mm) on center.

STRUCTURAL DESIGN CRITERIA

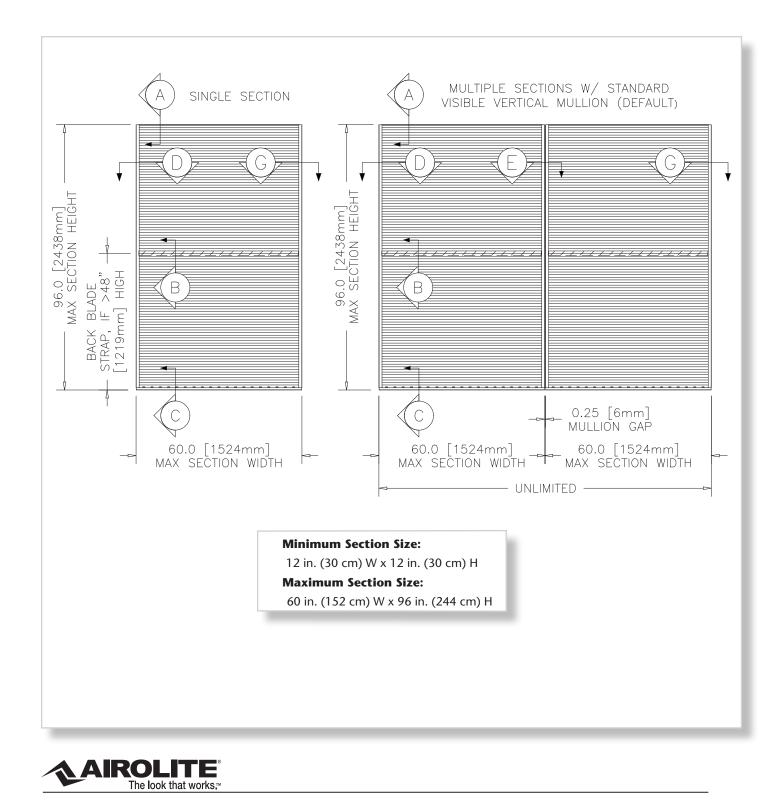
Louvers shall be tested in accordance with Florida protocols TAS 201, TAS 202 and TAS 203. Maximum single section size shall be limited to 60-inches (152 cm) W x 96-inches (244 cm) H. Louvers must be installed in accordance with the manufacturer's published installation instructions. Multiwide assemblies do not require any additional reinforcing provided the rough opening height is 96-inches or less. Structural reinforcing members along with any associated installation hardware or anchors is not provided by Airolite unless indicated otherwise by Airolite. Options are not subject to structural analysis unless indicated otherwise by Airolite.

PERFORMANCE RATINGS

FREE AREA:	8.02 sq. ft. (0.75 m ²)
MINIMUM FREE AREA VELOCITY at Beginning Point of Water Penetration:	1,083 fpm (5.5 m/s)
MINIMUM AIR VOLUME FLOW RATE at Beginning Point of Water Penetration:	8,686 cfm (4.10 m ³ /s)
MAXIMUM STATIC PRESSURE at Beginning Point of Water Penetration: 0	0.44 in. H ₂ O (0.109 kPa)
ee page 6 for complete Wind-driven Rain Perform ee page 8 for complete finish options	ance

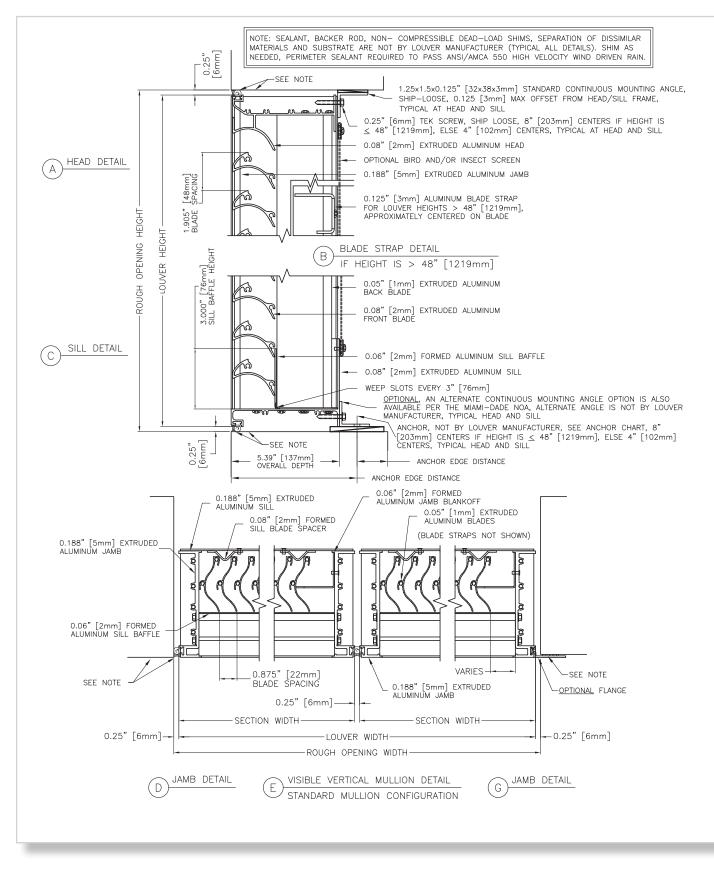
LOUVER TYPE SCC550MD PRODUCT DESCRIPTION & DETAILS

Airolite Storm Class[™] combination louvers are designed and rated to provide high volume intake and exhaust ventilation and the greatest level of protection against water penetration available even under the most severe winddriven rain conditions. Airolite Storm Class[™] Combination louvers incorporate exterior and interior louver blades that afford the designer optimum flexibility in aesthetic, economic and performance considerations. The interior vertical blades are a very efficient profile that yields high ventilation rates and presents a formidable barrier to water penetration. Louver Type SCC550MD is a 5.5-inch (139.7 mm) deep louver rated to be 99.5% effective at a core area velocity of 782 fpm (5.0 m/s) when tested at a wind velocity of 50 mph (22 m/s) and 8-inch per hour rainfall rate. Airolite Storm Class[™] Louver Type SCC550MD is a highly effective louver with AMCA Licensed Air Performance, Water Penetration and Wind Driven Rain performance ratings as well as tested in accordance with AMCA 540 Test Method for Louvers Impacted by Wind Borne Debris and AMCA 550 Test Method for High Velocity Wind Driven Rain that enables designers to select and specify this product with confidence. Please contact your local Airolite representative or the factory for assistance with the layout and design of support systems when required.



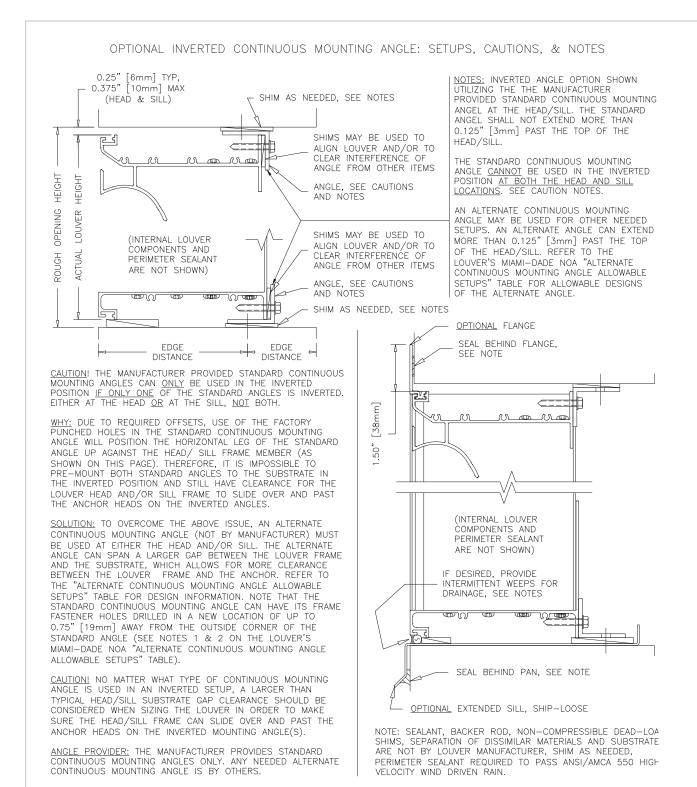
LOUVER TYPE SCC550MD PRODUCT DETAILS

VISIBLE JAMB





LOUVER TYPE SCC550MD PRODUCT DETAILS



The look that works."

LOUVER TYPE SCC550MD FASTENER CHART

SUBSTRATE ANCHOR SPACING							
ACTUAL HEIGHT	< 48 IN.	> 48 IN.					
ANCHOR SPACING	8 IN.	4 IN.					

	SUBSTRATE MINIMUMS			ANCHOR MINIMUMS					
SUBSTRATE	THICKNESS	DODEDTV		OVERALL	THREADED	EMBEDMENT	EDGE	Fy, Fu	
ТҮРЕ	(IN.)	PROPERTY	ANCHOR TYPE	LENGTH (IN.)	LENGTH (IN.)	(IN.)	(IN.)	(KSI)	
			1/4 IN. LAG SCREW, COATED STEEL		2.1/2			70, 105	
			1/4 IN. LAG SCREW, 300 SERIES STAINLESS (1)	3	2 1/2			65, 100	
WOOD	3	SG 0.42	1/4 IN. SPAX POWERLAG, HEX OR T-STAR WASHER HEAD, COATED STEEL		1 3/4	2 1/2	1 1/2		
			6 MM SPAX TIMBER SCREW, WASHER HEAD, 300 SERIES STAINLESS	80 MM	61 MM			-	
	16 GA	Fy 33 KSI	1/4-14 SCREW, COATED STEEL (6)		VARIES (2)	FULL	1/2		
STEEL			1/4-14 SCREW, 300 SERIES STAINLESS (1)	VARIES (2)				65, -	
			1/4-20 BOLT, 300 SERIES STAINLESS (1)]		BOLTED			
	1/8	5 05 KG	1/4-20 SCREW, COATED STEEL (6)			FULL	1/2	65	
ALUMINUM		Fy 25 KSI	1/4-20 SCREW OR THRU BOLT, 300 SERIES STAINLESS (1)	VARIES (2)	VARIES (2)	FULL/BOLTED		65, -	
	3		1/4 IN. DEWALT SCREW-BOLT+, COATED STEEL			2 1/2 NOM.	2		
CONCRETE (3)	CONCRETE (3) 4		3/8 IN. HILTI KWIK BOLT TZ EXPANSION, 304 OR 316 STAINLESS (5)	VARIES (2)	VARIES (2)	2 5/16 NOM.	3	-	
CRACKED CONCRETE (3)	4	Fc 2.5 KSI	3/8 IN. HILTI KWIK BOLT TZ EXPANSION, 304 OR 316 STAINLESS (5)	VARIES (2) VARIES (2)		2 5/16 NOM.	3	-	
			3/8 IN. DEWALT SCREW-BOLT+, COATED STEEL (5)			3 1/4 NOM.	1 1/2	-	
GROUT FILLED CMU (4)	4x4x16 Fm 1.5 k		1/2 IN. THREADED ROD W/ HIT-HY 270 ADHESIVE, 300 SERIES STAINLESS (5)	VARIES (2)	VARIES (2)	4 1/2 EFF.	1 3/4	65, -	

1) ANCHOR MANUFACTURING PROCESS IS COLD-WORKED.

2) AS NEEDED TO COMPLY WITH THE EMBEDMENT WHILE ACCOUNTING FOR THE THICKNESS OF THE MOUNTING ANGLE, SHIM(S), ETC.

3) NORMAL WEIGHT CONCRETE, INCLUDING PRE-CAST.

4) LIGHT/MEDIUM/NORMAL-WEIGHT CMU CONFORMING TO ASTM C90, TYPE II, GROUT FILLED CONFORMING TO C476.

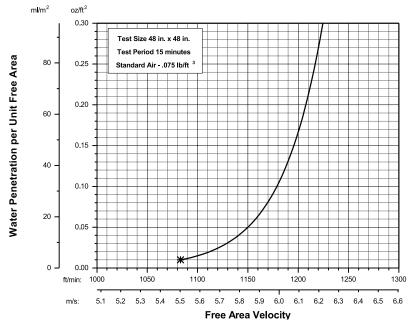
5) THE 1/4 IN. DIA. ANCHOR CLEARANCE HOLES IN THE MANUFACTURER PROVIDED STANDARD CONTINUOUS MOUNTING ANGLE WILL NEED TO BE FIELD ENLARGED TO ACCEPT THE ANCHOR.

6) SCREWS WITH THREADS AS NOTED MAY BE EITHER ELCO'S DRIL-FLEX WITH STALGARD, OR BRYNOLF'S GR-5 WITH PROCORR.

LOUVER TYPE SCC550MD PERFORMANCE RATINGS

WATER PENETRATION

(Standard Air - .075 lb./ft.3; Test Size - 48 in. x 48 in.; Test Duration - 15 min.)



The AMCA Water Penetration Test provides a method for comparing various louver models and designs as to their efficiency in resisting the penetration of rainfall under specific laboratory test conditions. The beginning point of water penetration is defined as that velocity where the water penetration curve projects through 0.01 oz. of water (penetration) per sq. ft. of louver free area. These performance ratings do not guarantee a louver to be weather-proof or stormproof and should be used in combination with other factors including good engineering judgement in selecting louvers. ***The beginning point of water penetration for Model SCC550MD is 1083 fpm (5.50 m/s) free area velocity.**

WIND-DRIVEN RAIN PERFORMANCE

	75mm/h (3 in 13 m/s (29 mpł	/hr) Rainfall & n) Wind Velocity	,	200mm/h (8 in/hr) Rainfall & 22 m/s (50 mph) Wind Velocity			
Ventilation Air Core Velocity m/s (fpm)	Ventilation Air Free Area Velocity m/s (fpm)	Water Penetration Effectiveness %	Water Penetration Classification	Ventilation Air Core Velocity m/s (fpm)	Ventilation Air Free Area Velocity m/s (fpm)	Water Penetration Effectiveness %	Water Penetration Classification
0.0 (0)	0.0 (0)		А	0.0 (0)	0.0 (0)		A
0.5 (98)	0.9 (177)		А	0.5 (98)	0.9 (177)		A
1.0 (197)	1.8 (356)		А	1.0 (197)	1.8 (356)		A
1.5 (295)	2.7 (533)		A	1.5 (295)	2.7 (533)		A
2.0 (394)	3.6 (712)		А	2.0 (394)	3.6 (712)		A
2.5 (492)	4.5 (889)		A	2.5 (492)	4.5 (889)		A
3.0 (591)	5.4 (1068)		А	3.0 (591)	5.4 (1068)		А
3.5 (689)	6.3 (1245)		А	3.5 (689)	6.3 (1245)		А
4.0 (787)	7.2 (1422)		А	4.0 (782)	7.2 (1413)	99.7	A
4.5 (886)	8.1 (1600)		А	4.5 (883)	8.1 (1595)	99.6	А
5.0 (980)	9.0 (1770)	100.0	А	5.0 (980)	9.0 (1770)	99.5	А

Discharge Loss Coefficient Class (Intake) = 3

Weather louvers shall be classified by their ability to reject simulated rain. The table to the right shows different classifications based on the maximum simulated rain penetration per square meter (square feet) of louver. Water penetration rating at a given louver face velocity is determined by the water penetration while the louver is subjected to a selected simulated rainfall rate and wind velocity.



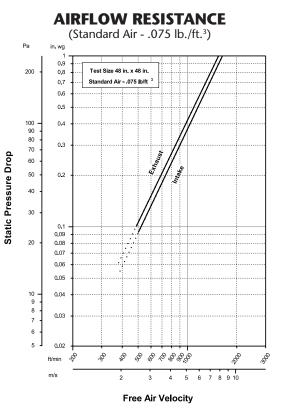
The Airolite Company, LLC certifies that Louver Type SCC550MD shown herein is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Water Penetration, Air Performance and Wind-driven Rain.



HIGH VELOCITY RAIN RESISTANT WITH BLADES FULLY OPEN AND IMPACT RESISTANT LOUVER Enhanced Protection Level E See www.MKCAorg for all certified or listed products

MC

The Airolite Company, LLC certifies that Louver Type SCC550MD shown herein is approved to bear the AMCA Listing Label. The ratings shown are based on tests and procedures performed in accordance with AMCA Publications and comply with the requirements of the AMCA Listing Label Program. The AMCA Listing Label applies to Wind Borne Debris Impact Resistant Louvers and High Velocity Rain Resistant Louvers.



Louver Type SCC550MD resistance to airflow varies depending on louver application (air intake or air exhaust). Free area velocities (shown) are higher than the average velocity through the overall louver size. (Test Figure 5.5-6.5)

Discharg	Discharge Loss Coefficient Classifications					
Class	Discharge Loss Coefficient					
1	0.4 and Above					
2	0.3 to 0.399					
3	0.2 to 0.299					
4	0.199 and Below					

Wind-driven Rain Penetration Classes					
Class Effectiveness					
A	1 to 0.99				
В	0.989 to 0.95				
C 0.949 to 0.80					
D	Below 0.80				



LOUVER TYPE SCC550MD PERFORMANCE RATINGS

Louver		Louver Width in Inches								
Height Inches	12	18	24	30	36	42	48	54	60	
12	0.23	0.38	0.52	0.66	0.81	0.95	1.09	1.24	1.38	
18	0.47	0.75	1.04	1.33	1.61	1.90	2.19	2.47	2.76	
24	0.72	1.16	1.60	2.04	2.48	2.92	3.36	3.80	4.24	
30	0.97	1.56	2.16	2.75	3.35	3.94	4.54	5.13	5.73	
36	1.22	1.97	2.72	3.47	4.22	4.97	5.72	6.47	7.22	
42	1.47	2.38	3.28	4.19	5.10	6.00	6.91	7.81	8.72	
48	1.71	2.76	3.81	4.86	5.92	6.97	8.02	9.07	10.12	
54	1.94	3.14	4.33	5.53	6.72	7.92	9.11	10.31	11.50	
60	2.18	3.52	4.86	6.20	7.54	8.88	10.22	11.56	12.90	
66	2.43	3.93	5.42	6.92	8.41	9.91	11.40	12.90	14.39	
72	2.68	4.33	5.98	7.63	9.29	10.94	12.59	14.24	15.89	
78	2.93	4.74	6.55	8.35	10.16	11.97	13.77	15.58	17.38	
84	3.19	5.15	7.11	9.07	11.03	12.99	14.95	16.91	18.87	
90	3.42	5.52	7.63	9.73	11.83	13.94	16.04	18.14	20.25	
96	3.65	5.90	8.14	10.39	12.64	14.89	17.13	19.38	21.63	

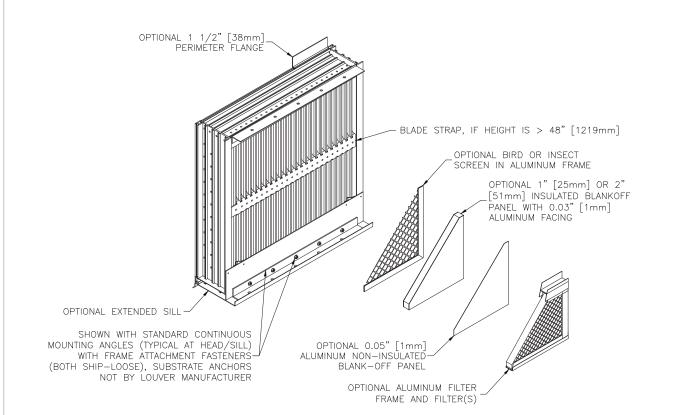
FREE AREA CHART - in square feet

CORE AREA CHART - in square feet

Louver		Louver Width in Inches								
Height Inches	12	18	24	30	36	42	48	54	60	
12	0.62	1.01	1.39	1.78	2.16	2.55	2.93	3.32	3.70	
18	1.03	1.67	2.30	2.93	3.57	4.20	4.84	5.47	6.11	
24	1.44	2.32	3.21	4.09	4.97	5.86	6.74	7.63	8.51	
30	1.84	2.98	4.11	5.25	6.38	7.52	8.65	9.78	10.92	
36	2.25	3.63	5.02	6.40	7.79	9.17	10.56	11.94	13.32	
42	2.66	4.29	5.92	7.56	9.19	10.83	12.46	14.10	15.73	
48	3.06	4.95	6.83	8.72	10.60	12.48	14.37	16.25	18.14	
54	3.47	5.60	7.74	9.87	12.01	14.14	16.27	18.41	20.54	
60	3.87	6.26	8.64	11.03	13.41	15.80	18.18	20.57	22.95	
66	4.28	6.92	9.55	12.18	14.82	17.45	20.09	22.72	25.36	
72	4.69	7.57	10.46	13.34	16.22	19.11	21.99	24.88	27.76	
78	5.09	8.23	11.36	14.50	17.63	20.77	23.90	27.03	30.17	
84	5.50	8.88	12.27	15.65	19.04	22.42	25.81	29.19	32.57	
90	5.91	9.54	13.17	16.81	20.44	24.08	27.71	31.35	34.98	
96	6.31	10.20	14.08	17.97	21.85	25.73	29.62	33.50	37.39	



LOUVER TYPE SCC550MD METHOD OF INSTALLATION & ACCESSORY OPTIONS



FINISHES

Finish Type	Description/Application	Color Selection	Standard Warranty (Aluminum)			
AAMA 2605 100% Fluoropolymer (FEVE) 2-Coat 70% Kynar® (PVDF) 3-Coat 70% Kynar® (PVDF) 4-Coat 70% Kynar® (PVDF)	"Best." The premier finish for extruded aluminum. Tough, long-lasting coating has superior color retention and abrasive properties. Resists chalking, fading, chemical abrasion and weathering.	Standard Colors: Any of the 27 standard colors shown can be furnished in 70% or 50% Kynar®, 100% Fluoropolymer or Baked Enamel. Mica Colors: Airolite offers 6 standard Mica colors for 70% Kynar® or 100% Fluoropolymer. Custom Colors:	10 Years (20 Years Optional)			
AAMA 2603 Baked Enamel	"Good." Provides good adhesion and resistance to weathering, corrosion and chemical stain.	Custom color matching is available. Consult your Airolite representative for cost and/or lead-time implications if a custom color is required.	1 Year			
AA-M10C22A42 Integral Color Anodize	"Two-step" anodizing is produced by following the normal anodizing step with a second, colorfast process.	Light, Medium, Dark or Extra Dark Bronze; Champagne; Black	5 years			
AA-M10C22A41 Clear Anodize 215 R-1	Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack.	Clear	5 years			
AA-M10C22A31 Clear Anodize 204	Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack.	(lear				
Prime Coat	Louvers or architectural products shall be cleaned, pre-treated a Airolite does not recommend prime coat or field painting of ma	n/a				
Mill	Materials may be supplied in natural aluminum or galvanized steel finish when normal weathering is acceptable and there is no concern for color or color change.					

Finishes meet or exceed AAMA 2605, AAMA 2604, and AAMA 2603 requirements. Please consult www.airolite.com for complete information on standard and extended paint warranties. Paint finish warranties are not applicable to steel products.



Submittal SCC550MD February 2020 Copyright © 2020 The Airolite Company, LLC

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