

NFRC Product Certification Authorization Report



Manufacturer: MGM Industries **Product Series:** 5610/5665/5680 Single Hung **Simulation Lab:** SNCT **Initial Cert. Date:** 01/11/2008
Street: 287 Free Hill Road **Product Type:** VSSH **Sim. Report #:** NCTL-110-14250-01a **Re-Certification Date:** 10/06/2011
City/State/Zip: Hendersonville, TN 37075 **Air Leakage:** **Sim. Report Date:** 08/16/2011 **Revised Date:** 03/23/2012
Print Date: 03/23/2012 **Test Date:** 09/19/2011 **Expiration Date:** 09/19/2015

CPD Number: MGM-A-19														IA: American Architectural Manufacturers Association		
Status	Product Num.	Manufacturer Code	Frame/Sash	Glaz Lyr	Low-E (Surface)	Gap Width(s)	Spacer	Gap Fill	Grids	Dividers	Tint	U-Factor	SHGC	VT	Cond. Res.	
	00016-00001	2mm Clear/AIR/2mm Clear	VY/VY	2		0.553	SU-D	Fill 1: AIR (100)	N		CL	0.46	0.62	0.65	45	
	00016-00002	2mm Clear/AIR/2mm Clear	VY/VY	2		0.553	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.46	0.56	0.58	45	
	00016-00003	3mm Clear/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	N		CL	0.46	0.61	0.65	45	
	00016-00004	3mm Clear/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.46	0.55	0.58	45	
	00016-00005	3mm Gray/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	N		GY	0.46	0.48	0.44	45	
	00016-00006	3mm Gray/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.46	0.43	0.39	45	
	00016-00007	3mm Bronze/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.46	0.49	0.48	45	
	00016-00008	3mm Bronze/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.46	0.44	0.43	45	
	00017-00001	2 mm LoE ² 270/AIR/2mm Clear	VY/VY	2	0.037(2)	0.553	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.29	0.55	56	
	00017-00002	2 mm LoE ² 270/AIR/2mm Clear	VY/VY	2	0.037(2)	0.553	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.26	0.49	56	
	00017-00003	3 mm LoE ² 270/AIR/3mm Clear	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.29	0.55	56	
	00017-00004	3 mm LoE ² 270/AIR/3mm Clear	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.26	0.49	56	
	00017-00005	2mm Clear/AIR/2 mm LoE ² 270	VY/VY	2	0.037(3)	0.553	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.36	0.55	56	
	00017-00006	2mm Clear/AIR/2 mm LoE ² 270	VY/VY	2	0.037(3)	0.553	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.33	0.49	56	
	00017-00007	3mm Clear/AIR/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.36	0.55	56	
	00017-00008	3mm Clear/AIR/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.32	0.49	56	
	00017-00009	3mm Gray/AIR/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.32	0.28	0.38	56	
	00017-00010	3mm Gray/AIR/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.32	0.25	0.34	56	
	00017-00011	3mm Bronze/AIR/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.32	0.29	0.41	56	
	00017-00012	3mm Bronze/AIR/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.32	0.26	0.37	56	
	00017-00013	3 mm LoE ² 270/AIR/3mm Gray	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.32	0.28	0.38	56	
	00017-00014	3 mm LoE ² 270/AIR/3mm Gray	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.32	0.25	0.34	56	
	00017-00015	3 mm LoE ² 270/AIR/3mm Bronze	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.32	0.28	0.41	56	
	00017-00016	3 mm LoE ² 270/AIR/3mm Bronze	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.32	0.26	0.37	56	

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CPD Number: MGM-A-19															IA: American Architectural Manufacturers Association
Status	Product Num.	Manufacturer Code	Frame/Sash	Glaz Lyrs	Low-E (Surface)	Gap Width(s)	Spacer	Gap Fill	Grids	Dividers	Tint	U-Factor	SHGC	VT	Cond. Res.
	00018-00001	2 mm LoE ² 270/ARG/2mm Clear	VY/VY	2	0.037(2)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.29	0.55	60
	00018-00002	2 mm LoE ² 270/ARG/2mm Clear	VY/VY	2	0.037(2)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.28	0.26	0.49	60
	00018-00003	3 mm LoE ² 270/ARG/3mm Clear	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.29	0.55	60
	00018-00004	3 mm LoE ² 270/ARG/3mm Clear	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.28	0.26	0.49	60
	00018-00005	2mm Clear/ARG/2 mm LoE ² 270	VY/VY	2	0.037(3)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.37	0.55	60
	00018-00006	2mm Clear/ARG/2 mm LoE ² 270	VY/VY	2	0.037(3)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.28	0.33	0.49	60
	00018-00007	3mm Clear/ARG/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.36	0.55	60
	00018-00008	3mm Clear/ARG/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.28	0.33	0.49	60
	00018-00009	3mm Gray/ARG/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.28	0.27	0.38	60
	00018-00010	3mm Gray/ARG/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	GY	0.28	0.25	0.34	60
	00018-00011	3mm Bronze/ARG/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.28	0.29	0.41	60
	00018-00012	3mm Bronze/ARG/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	BZ	0.28	0.26	0.37	60
	00018-00013	3 mm LoE ² 270/ARG/3mm Gray	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.28	0.28	0.38	60
	00018-00014	3 mm LoE ² 270/ARG/3mm Gray	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	GY	0.28	0.25	0.34	60
	00018-00015	3 mm LoE ² 270/ARG/3mm Bronze	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.28	0.28	0.41	60
	00018-00016	3 mm LoE ² 270/ARG/3mm Bronze	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	BZ	0.28	0.26	0.37	60
	00019-00001	2 mm LoE ³ 366/AIR/2mm Clear	VY/VY	2	0.022(2)	0.553	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.22	0.51	56
	00019-00002	2 mm LoE ³ 366/AIR/2mm Clear	VY/VY	2	0.022(2)	0.553	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.20	0.46	56
	00019-00003	3 mm LoE ³ 366/AIR/3mm Clear	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.22	0.51	56
	00019-00004	3 mm LoE ³ 366/AIR/3mm Clear	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.20	0.45	56
	00019-00005	2mm Clear/AIR/2 mm LoE ³ 366	VY/VY	2	0.022(3)	0.553	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.31	0.51	56
	00019-00006	2mm Clear/AIR/2 mm LoE ³ 366	VY/VY	2	0.022(3)	0.553	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.28	0.46	56
	00019-00007	3mm Clear/AIR/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.30	0.51	56
	00019-00008	3mm Clear/AIR/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.27	0.45	56
	00019-00009	3mm Gray/AIR/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.32	0.23	0.35	56

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	00019-00010	3mm Gray/AIR/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.32	0.21	0.31	56
	00019-00011	3mm Bronze/AIR/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.32	0.25	0.38	56
	00019-00012	3mm Bronze/AIR/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.32	0.22	0.34	56
	00019-00013	3 mm LoE ³ 366/AIR/3mm Gray	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.32	0.21	0.35	56
	00019-00014	3 mm LoE ³ 366/AIR/3mm Gray	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.32	0.19	0.31	56
	00019-00015	3 mm LoE ³ 366/AIR/3mm Bronze	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.32	0.21	0.38	56
	00019-00016	3 mm LoE ³ 366/AIR/3mm Bronze	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.32	0.19	0.34	56
	00020-00001	2 mm LoE ³ 366/ARG/2mm Clear	VY/VY	2	0.022(2)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.22	0.51	60
	00020-00002	2 mm LoE ³ 366/ARG/2mm Clear	VY/VY	2	0.022(2)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.28	0.20	0.46	60
	00020-00003	3 mm LoE ³ 366/ARG/3mm Clear	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.22	0.51	60
	00020-00004	3 mm LoE ³ 366/ARG/3mm Clear	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.28	0.20	0.45	60
	00020-00005	2mm Clear/ARG/2 mm LoE ³ 366	VY/VY	2	0.022(3)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.31	0.51	60
	00020-00006	2mm Clear/ARG/2 mm LoE ³ 366	VY/VY	2	0.022(3)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.28	0.28	0.46	60
	00020-00007	3mm Clear/ARG/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.31	0.51	60
	00020-00008	3mm Clear/ARG/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.28	0.28	0.45	60
	00020-00009	3mm Gray/ARG/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.28	0.23	0.35	60
	00020-00010	3mm Gray/ARG/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	GY	0.28	0.21	0.31	60
	00020-00011	3mm Bronze/ARG/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.28	0.24	0.38	60
	00020-00012	3mm Bronze/ARG/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	BZ	0.28	0.22	0.34	60
	00020-00013	3 mm LoE ³ 366/ARG/3mm Gray	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.28	0.21	0.35	60
	00020-00014	3 mm LoE ³ 366/ARG/3mm Gray	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	GY	0.28	0.19	0.31	60
	00020-00015	3 mm LoE ³ 366/ARG/3mm Bronze	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.28	0.21	0.38	60
	00020-00016	3 mm LoE ³ 366/ARG/3mm Bronze	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	BZ	0.28	0.19	0.34	60
	00021-00001	3mm Gray/ARG/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.44	0.47	0.44	45
	00021-00002	3mm Gray/ARG/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	GY	0.44	0.43	0.39	45

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	00021-00004	3mm Bronze/ARG/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	BZ	0.44	0.44	0.43	45	
	00022-00001	5665, 3mm Clear/AIR/3mm Clear	VY/VI	2		0.514	SU-D	Fill 1: AIR (100)	N		CL	0.48	0.61	0.65	43	
	00022-00002	5665, 3mm Clear/AIR/3mm Clear	VY/VI	2		0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.48	0.55	0.58	43	
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	00023-00001	5665, 3 mm LoE ² 270/AIR/3mm Clear	VY/VI	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.34	0.29	0.55	49	
	00023-00002	5665, 3 mm LoE ² 270/AIR/3mm Clear	VY/VI	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.34	0.26	0.49	49	
	00023-00003	5665, 3mm Clear/AIR/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.34	0.36	0.55	49	
	00023-00004	5665, 3mm Clear/AIR/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.34	0.32	0.49	49	
	00023-00005	5665, 3mm Gray/AIR/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.34	0.28	0.38	49	
	00023-00006	5665, 3mm Gray/AIR/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.34	0.25	0.34	49	
	00023-00007	5665, 3mm Bronze/AIR/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.34	0.29	0.41	49	
	00023-00008	5665, 3mm Bronze/AIR/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.34	0.26	0.37	49	
	00023-00009	5665, 3 mm LoE ² 270/AIR/3mm Gray	VY/VI	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.34	0.28	0.38	49	
	00023-00010	5665, 3 mm LoE ² 270/AIR/3mm Gray	VY/VI	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.34	0.25	0.34	49	
	00023-00011	5665, 3 mm LoE ² 270/AIR/3mm Bronze	VY/VI	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.34	0.28	0.41	49	
	00023-00012	5665, 3 mm LoE ² 270/AIR/3mm Bronze	VY/VI	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.34	0.26	0.37	49	
	00024-00001	5665, 3 mm LoE ² 270/ARG/3mm Clear	VY/VI	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.31	0.29	0.55	50	
	00024-00002	5665, 3 mm LoE ² 270/ARG/3mm Clear	VY/VI	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.31	0.26	0.49	50	
	00024-00003	5665, 3mm Clear/ARG/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.31	0.36	0.55	50	
	00024-00004	5665, 3mm Clear/ARG/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.31	0.33	0.49	50	
	00024-00005	5665, 3mm Gray/ARG/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.31	0.27	0.38	50	

NFRC Product Certification Authorization Report



Manufacturer: MGM Industries **Product Series:** 5610/5665/5680 Single Hung **Simulation Lab:** SNCT **Initial Cert. Date:** 01/11/2008
Street: 287 Free Hill Road **Product Type:** VSSH **Sim. Report #:** NCTL-110-14250-01a **Re-Certification Date:** 10/06/2011
City/State/Zip: Hendersonville, TN 37075 **Air Leakage:** **Sim. Report Date:** 08/16/2011 **Revised Date:** 03/23/2012
Print Date: 03/23/2012 **Test Date:** 09/19/2011 **Expiration Date:** 09/19/2015

CPD Number: MGM-A-19													IA: American Architectural Manufacturers Association			
Status	Product Num.	Manufacturer Code	Frame/Sash	Glaz Lyrs	Low-E (Surface)	Gap Width(s)	Spacer	Gap Fill	Grids	Dividers	Tint	U-Factor	SHGC	VT	Cond. Res.	
	00024-00006	5665, 3mm Gray/ARG/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	GY	0.31	0.25	0.34	50	
	00024-00007	5665, 3mm Bronze/ARG/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.31	0.29	0.41	50	
	00024-00008	5665, 3mm Bronze/ARG/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	BZ	0.31	0.26	0.37	50	
	00024-00009	5665, 3 mm LoE ² 270/ARG/3mm Gray	VY/VI	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.31	0.28	0.38	50	
	00024-00010	5665, 3 mm LoE ² 270/ARG/3mm Gray	VY/VI	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	GY	0.31	0.25	0.34	50	
	00024-00011	5665, 3 mm LoE ² 270/ARG/3mm Bronze	VY/VI	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.31	0.28	0.41	50	
	00024-00012	5665, 3 mm LoE ² 270/ARG/3mm Bronze	VY/VI	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	BZ	0.31	0.26	0.37	50	
	00025-00001	5665, 3 mm LoE ³ 366/AIR/3mm Clear	VY/VI	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.34	0.22	0.51	49	
	00025-00002	5665, 3 mm LoE ³ 366/AIR/3mm Clear	VY/VI	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.34	0.20	0.45	49	
	00025-00003	5665, 3mm Clear/AIR/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.34	0.30	0.51	49	
	00025-00004	5665, 3mm Clear/AIR/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.34	0.27	0.45	49	
	00025-00005	5665, 3mm Gray/AIR/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.34	0.23	0.35	49	
	00025-00006	5665, 3mm Gray/AIR/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.34	0.21	0.31	49	
	00025-00007	5665, 3mm Bronze/AIR/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.34	0.25	0.38	49	
	00025-00008	5665, 3mm Bronze/AIR/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.34	0.22	0.34	49	
	00025-00009	5665, 3 mm LoE ³ 366/AIR/3mm Gray	VY/VI	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.34	0.21	0.35	49	
	00025-00010	5665, 3 mm LoE ³ 366/AIR/3mm Gray	VY/VI	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.34	0.19	0.31	49	
	00025-00011	5665, 3 mm LoE ³ 366/AIR/3mm Bronze	VY/VI	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.34	0.21	0.38	49	
	00025-00012	5665, 3 mm LoE ³ 366/AIR/3mm Bronze	VY/VI	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.34	0.19	0.34	49	
	00026-00001	5665, 3 mm LoE ³ 366/ARG/3mm Clear	VY/VI	2	0.022(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.30	0.22	0.51	50	
	00026-00002	5665, 3 mm LoE ³ 366/ARG/3mm Clear	VY/VI	2	0.022(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.30	0.20	0.45	50	
	00026-00003	5665, 3mm Clear/ARG/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.30	0.31	0.51	50	
	00026-00004	5665, 3mm Clear/ARG/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.30	0.28	0.45	50	

NFRC Product Certification Authorization Report



Manufacturer: MGM Industries **Product Series:** 5610/5665/5680 Single Hung **Simulation Lab:** SNCT **Initial Cert. Date:** 01/11/2008
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City/State/Zip: Hendersonville, TN 37075 **Air Leakage:** **Sim. Report Date:** 08/16/2011 **Revised Date:** 03/23/2012
Print Date: 03/23/2012 **Test Date:** 09/19/2011 **Expiration Date:** 09/19/2015

CPD Number: MGM-A-19													IA: American Architectural Manufacturers Association			
Status	Product Num.	Manufacturer Code	Frame/Sash	Glaz Lyrs	Low-E (Surface)	Gap Width(s)	Spacer	Gap Fill	Grids	Dividers	Tint	U-Factor	SHGC	VT	Cond. Res.	
	00026-00005	5665, 3mm Gray/ARG/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.30	0.23	0.35	50	
	00026-00006	5665, 3mm Gray/ARG/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	GY	0.30	0.21	0.31	50	
	00026-00007	5665, 3mm Bronze/ARG/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.30	0.24	0.38	50	
	00026-00008	5665, 3mm Bronze/ARG/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	BZ	0.30	0.22	0.34	50	
	00026-00009	5665, 3 mm LoE ³ 366/ARG/3mm Gray	VY/VI	2	0.022(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.30	0.21	0.35	50	
	00026-00010	5665, 3 mm LoE ³ 366/ARG/3mm Gray	VY/VI	2	0.022(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	GY	0.30	0.19	0.31	50	
	00026-00011	5665, 3 mm LoE ³ 366/ARG/3mm Bronze	VY/VI	2	0.022(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.30	0.21	0.38	50	
	00026-00012	5665, 3 mm LoE ³ 366/ARG/3mm Bronze	VY/VI	2	0.022(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	BZ	0.30	0.19	0.34	50	
	00027-00001	5680, 3mm Gray/ARG/3mm Clear	VY/VI	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.46	0.47	0.44	45	
	00027-00002	5680, 3mm Gray/ARG/3mm Clear	VY/VI	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	GY	0.46	0.43	0.39	45	
	00027-00003	5680, 3mm Bronze/ARG/3mm Clear	VY/VI	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.46	0.49	0.48	45	
	00027-00004	5680, 3mm Bronze/ARG/3mm Clear	VY/VI	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	BZ	0.46	0.44	0.43	45	
	00028-00001	5680, Clear laminate/AIR/3mm Clear	VY/VI	2		0.294	SU-D	Fill 1: AIR (100)	N		CL	0.52	0.53	0.62	42	
	00029-00001	5680, Clear laminate/AIR/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.294	SU-D	Fill 1: AIR (100)	N		CL	0.40	0.34	0.53	46	
	00029-00002	5680, 3 mm LoE ² 270/AIR/Clear laminate	VY/VI	2	0.037(2)	0.294	SU-D	Fill 1: AIR (100)	N		CL	0.40	0.29	0.53	46	
	00030-00001	5680, Clear laminate/AIR/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.294	SU-D	Fill 1: AIR (100)	N		CL	0.40	0.29	0.49	46	
	00030-00002	5680, 3 mm LoE ³ 366/AIR/Clear laminate	VY/VI	2	0.022(2)	0.294	SU-D	Fill 1: AIR (100)	N		CL	0.40	0.22	0.49	46	
	00031-00001	5680, Clear laminate/ARG/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.294	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.35	0.34	0.53	48	
	00031-00002	5680, 3 mm LoE ² 270/ARG/Clear laminate	VY/VI	2	0.037(2)	0.294	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.35	0.29	0.53	48	
	00032-00001	5680, Clear laminate/ARG/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.294	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.34	0.29	0.49	48	

NFRC Product Certification Authorization Report



Manufacturer: MGM Industries **Product Series:** 5610/5665/5680 Single Hung **Simulation Lab:** SNCT **Initial Cert. Date:** 01/11/2008
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City/State/Zip: Hendersonville, TN 37075 **Air Leakage:** **Sim. Report Date:** 08/16/2011 **Revised Date:** 03/23/2012
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CPD Number: MGM-A-19

IA: American Architectural Manufacturers Association

Status	Product Num.	Manufacturer Code	Frame/Sash	Glaz Lyrs	Low-E (Surface)	Gap Width(s)	Spacer	Gap Fill	Grids	Dividers	Tint	U-Factor	SHGC	VT	Cond. Res.
	00032-00002	5680, 3 mm LoE ³ 366/ARG/Clear laminate	VY/VI	2	0.022(2)	0.294	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.34	0.22	0.49	48
	00033-00001	5680, Clear laminate/AIR/3mm Clear	VY/VI	2		0.294	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.53	0.48	0.56	42
	00034-00001	5680, Clear laminate/AIR/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.294	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.42	0.30	0.47	46
	00034-00002	5680, 3 mm LoE ² 270/AIR/Clear laminate	VY/VI	2	0.037(2)	0.294	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.42	0.26	0.47	46
	00035-00001	5680, Clear laminate/AIR/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.294	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.42	0.26	0.44	46
	00035-00002	5680, 3 mm LoE ³ 366/AIR/Clear laminate	VY/VI	2	0.022(2)	0.294	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.42	0.20	0.44	46
	00036-00001	5680, Clear laminate/ARG/3 mm LoE ² 270	VY/VI	2	0.037(3)	0.294	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.37	0.30	0.47	48
	00036-00002	5680, 3 mm LoE ² 270/ARG/Clear laminate	VY/VI	2	0.037(2)	0.294	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.37	0.26	0.47	48
	00037-00001	5680, Clear laminate/ARG/3 mm LoE ³ 366	VY/VI	2	0.022(3)	0.294	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.37	0.26	0.44	48
	00037-00002	5680, 3 mm LoE ³ 366/ARG/Clear laminate	VY/VI	2	0.022(2)	0.294	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.37	0.20	0.44	48

Baseline Information

Test Lab	Test Date	Test Size	Tested U-Value	Standard U-Value	Test Report Number
TNCT	09/19/2011	1200mm X 1500mm	0.320	0.310	NCTL-110-14251-1

Comments:

I hereby certify that all requirements for NFRC Certification Authorization have been met and that the above information is true and correct, to the best of my knowledge.

Authorized IA
Signature: _____