

NFRC Product Certification Authorization Report



Manufacturer: MGM Industries **Product Series:** 4710 Casement **Simulation Lab:** SNCT **Initial Cert. Date:** 03/24/2004
Street: 287 Free Hill Road **Product Type:** CSSV **Sim. Report #:** NCTL-110-14238-01 **Re-Certification Date:** 01/25/2012
City/State/Zip: Hendersonville, TN 37075 **Air Leakage:** 0.10000 **Sim. Report Date:** 08/17/2011 **Revised Date:** 08/17/2011
Print Date: 01/25/2012 **Test Date:** 08/23/2011 **Expiration Date:** 08/23/2015

CPD Number: MGM-A-17

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.
	00021-00001	2mm Clear/AIR/2mm Clear	VY/VY	2		0.553	SU-D	Fill 1: AIR (100)	N		CL	0.42	0.53	0.55	45
	00021-00002	2mm Clear/AIR/2mm Clear	VY/VY	2		0.553	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.42	0.48	0.50	45
	00021-00003	3mm Clear/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	N		CL	0.42	0.52	0.55	45
	00021-00004	3mm Clear/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.42	0.47	0.49	45
	00021-00005	3mm Gray/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	N		GY	0.42	0.41	0.37	45
	00021-00006	3mm Gray/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.42	0.37	0.34	45
	00021-00007	3mm Bronze/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.42	0.42	0.41	45
	00021-00008	3mm Bronze/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.42	0.38	0.37	45
	00022-00001	2 mm LoE ² 270/AIR/2mm Clear	VY/VY	2	0.037(2)	0.553	SU-D	Fill 1: AIR (100)	N		CL	0.31	0.25	0.47	59
	00022-00002	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	0.31	0.23	0.42	59
	00022-00003	3 mm LoE ² 270/AIR/3mm Clear	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.31	0.25	0.46	59
	00022-00004	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	0.31	0.23	0.42	59
	00022-00005	2mm Clear/AIR/2 mm LoE ² 270	VY/VY	2	0.037(3)	0.553	SU-D	Fill 1: AIR (100)	N		CL	0.31	0.31	0.47	59
	00022-00006	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	0.31	0.28	0.42	59
	00022-00007	3mm Clear/AIR/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.31	0.31	0.46	59
	00022-00008	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	0.31	0.28	0.42	59
	00022-00009	3mm Gray/AIR/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.31	0.24	0.32	59
	00022-00010	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	0.31	0.22	0.29	59
	00022-00011	3mm Bronze/AIR/3 mm LoE ² 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.31	0.25	0.35	59
	00022-00012	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	0.31	0.23	0.31	59
	00022-00013	3 mm LoE ² 270/AIR/3mm Gray	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.31	0.24	0.32	59
	00022-00014	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	0.31	0.22	0.29	59
	00022-00015	3 mm LoE ² 270/AIR/3mm Bronze	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.31	0.24	0.35	59
	00022-00016	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	0.31	0.22	0.31	59
	00023-00001	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	0.27	0.25	0.47	62

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	00023-00002	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	0.27	0.23	0.42	62
	00023-00003	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	0.27	0.25	0.46	62
	00023-00004	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	0.27	0.23	0.42	62
	00023-00005	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	0.27	0.31	0.47	62
	00023-00006	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	0.27	0.29	0.42	62
	00023-00007	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	0.27	0.31	0.46	62
	00023-00008	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	0.27	0.28	0.42	62
	00023-00009	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	0.27	0.23	0.32	62
	00023-00010	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	0.27	0.21	0.29	62
	00023-00011	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	0.27	0.25	0.35	62
	00023-00012	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	0.27	0.22	0.31	62
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	00023-00014	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	0.27	0.22	0.29	62
	00023-00015	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	0.27	0.24	0.35	62
	00023-00016	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	0.27	0.22	0.31	62
	00024-00001	2 mm LoE ³ 366/AIR/2mm Clear	VY/VY	2	0.022(2)	0.553	SU-D	Fill 1: AIR (100)	N		CL	0.30	0.19	0.43	59
	00024-00002	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	0.30	0.17	0.39	59
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	00024-00005	2mm Clear/AIR/2 mm LoE ³ 366	VY/VY	2	0.022(3)	0.553	SU-D	Fill 1: AIR (100)	N		CL	0.30	0.26	0.43	59
	00024-00006	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	0.30	0.24	0.39	59
	00024-00007	3mm Clear/AIR/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.30	0.26	0.43	59
	00024-00008	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	0.30	0.24	0.39	59
	00024-00009	3mm Gray/AIR/3 mm LoE ³ 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.30	0.20	0.29	59
	00024-00010	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	0.30	0.18	0.26	59

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	00024-00012	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	0.30	0.19	0.29	59
	00024-00013	3 mm LoE ³ 366/AIR/3mm Gray	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.30	0.18	0.29	59
	00024-00014	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	0.30	0.17	0.26	59
	00024-00015	3 mm LoE ³ 366/AIR/3mm Bronze	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.30	0.18	0.32	59
	00024-00016	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	0.30	0.17	0.29	59
	00025-00001	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	0.27	0.19	0.43	63
	00025-00002	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	0.27	0.17	0.39	63
	00025-00003	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	0.27	0.19	0.43	63
	00025-00004	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	0.27	0.17	0.39	63
	00025-00005	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	0.27	0.27	0.43	63
	00025-00006	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	0.27	0.24	0.39	63
	00025-00007	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	0.27	0.26	0.43	63
	00025-00008	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	0.27	0.24	0.39	63
	00025-00009	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	0.27	0.20	0.29	63
	00025-00010	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	0.27	0.18	0.26	63
	00025-00011	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	0.27	0.21	0.32	63
	00025-00012	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	0.27	0.19	0.29	63
	00025-00013	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	0.27	0.18	0.29	63
	00025-00014	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	0.27	0.17	0.26	63
	00025-00015	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	0.27	0.18	0.32	63
	00025-00016	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	0.27	0.17	0.29	63
	00026-00001	3mm Gray/ARG/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.41	0.40	0.37	47
	00026-00002	3mm Gray/ARG/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	GY	0.41	0.37	0.34	47
	00026-00003	3mm Bronze/ARG/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.41	0.42	0.41	47

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	00026-00004	3mm Bronze/ARG/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	BZ	0.41	0.38	0.37	47

Baseline Information

Test Lab	Test Date	Test Size	Tested U-Value	Standard U-Value	Test Report Number
TNCT	08/23/2011	600mm X 1500mm	0.310	0.300	NCTL-110-14239-1

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: _____