

# NFRC Product Certification Authorization Report



**Manufacturer:** MGM Industries      **Product Series:** 7010 Double Hung      **Simulation Lab:** SNCT      **Initial Cert. Date:** 03/19/2004  
**Street:** 287 Free Hill Road      **Product Type:** VSDH      **Sim. Report #:** NCTL-110-14260-01      **Re-Certification Date:** 11/15/2011  
**City/State/Zip:** Hendersonville, TN 37075      **Air Leakage:** 0.10000      **Sim. Report Date:** 08/22/2011      **Revised Date:** 08/22/2011  
**Print Date:** 11/15/2011      **Test Date:** 09/09/2011      **Expiration Date:** 09/09/2015

CPD Number: MGM-A-16

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.
	00010-00001	2mm Clear/AIR/2mm Clear	VY/VY	2		0.553	SU-D	Fill 1: AIR (100)	N		CL	0.45	0.60	0.63	44
	00010-00002	2mm Clear/AIR/2mm Clear	VY/VY	2		0.553	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.45	0.54	0.56	44
	00010-00003	3mm Clear/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	N		CL	0.45	0.59	0.62	44
	00010-00004	3mm Clear/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.45	0.53	0.55	44
	00010-00005	3mm Gray/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	N		GY	0.45	0.46	0.42	44
	00010-00006	3mm Gray/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.45	0.41	0.38	44
	00010-00007	3mm Bronze/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.45	0.47	0.46	44
	00010-00008	3mm Bronze/AIR/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.45	0.42	0.41	44
	00011-00001	2 mm LoE <sup>2</sup> 270/AIR/2mm Clear	VY/VY	2	0.037(2)	0.553	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.28	0.53	55
	00011-00002	2 mm LoE <sup>2</sup> 270/AIR/2mm Clear	VY/VY	2	0.037(2)	0.553	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.25	0.47	55
	00011-00003	3 mm LoE <sup>2</sup> 270/AIR/3mm Clear	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.28	0.53	55
	00011-00004	3 mm LoE <sup>2</sup> 270/AIR/3mm Clear	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.25	0.47	55
	00011-00005	2mm Clear/AIR/2 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.553	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.35	0.53	55
	00011-00006	2mm Clear/AIR/2 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.553	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.31	0.47	55
	00011-00007	3mm Clear/AIR/3 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.35	0.53	55
	00011-00008	3mm Clear/AIR/3 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.31	0.47	55
	00011-00009	3mm Gray/AIR/3 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.32	0.27	0.36	55
	00011-00010	3mm Gray/AIR/3 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.32	0.24	0.32	55
	00011-00011	3mm Bronze/AIR/3 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.32	0.28	0.40	55
	00011-00012	3mm Bronze/AIR/3 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.32	0.25	0.35	55
	00011-00013	3 mm LoE <sup>2</sup> 270/AIR/3mm Gray	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.32	0.27	0.36	55
	00011-00014	3 mm LoE <sup>2</sup> 270/AIR/3mm Gray	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.32	0.24	0.32	55
	00011-00015	3 mm LoE <sup>2</sup> 270/AIR/3mm Bronze	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.32	0.27	0.40	55
	00011-00016	3 mm LoE <sup>2</sup> 270/AIR/3mm Bronze	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.32	0.25	0.35	55
	00012-00001	2 mm LoE <sup>2</sup> 270/ARG/2mm Clear	VY/VY	2	0.037(2)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.28	0.53	59

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<b>Manufacturer:</b> MGM Industries	<b>Product Series:</b> 7010 Double Hung	<b>Simulation Lab:</b> SNCT	<b>Initial Cert. Date:</b> 03/19/2004
<b>Street:</b> 287 Free Hill Road	<b>Product Type:</b> VSDH	<b>Sim. Report #:</b> NCTL-110-14260-01	<b>Re-Certification Date:</b> 11/15/2011
<b>City/State/Zip:</b> Hendersonville, TN 37075	<b>Air Leakage:</b> 0.10000	<b>Sim. Report Date:</b> 08/22/2011	<b>Revised Date:</b> 08/22/2011
<b>Print Date:</b> 11/15/2011		<b>Test Date:</b> 09/09/2011	<b>Expiration Date:</b> 09/09/2015

CPD Number: MGM-A-16

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.
	00012-00002	2 mm LoE <sup>2</sup> 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	0.25	0.47	59
	00012-00003	3 mm LoE <sup>2</sup> 270/ARG/3mm Clear	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.28	0.53	59
	00012-00004	3 mm LoE <sup>2</sup> 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	0.25	0.47	59
	00012-00005	2mm Clear/ARG/2 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.35	0.53	59
	00012-00006	2mm Clear/ARG/2 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.28	0.32	0.47	59
	00012-00007	3mm Clear/ARG/3 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.35	0.53	59
	00012-00008	3mm Clear/ARG/3 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.28	0.31	0.47	59
	00012-00009	3mm Gray/ARG/3 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.28	0.26	0.36	59
	00012-00010	3mm Gray/ARG/3 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	GY	0.28	0.24	0.32	59
	00012-00011	3mm Bronze/ARG/3 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.28	0.28	0.40	59
	00012-00012	3mm Bronze/ARG/3 mm LoE <sup>2</sup> 270	VY/VY	2	0.037(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	BZ	0.28	0.25	0.35	59
	00012-00013	3 mm LoE <sup>2</sup> 270/ARG/3mm Gray	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.28	0.27	0.36	59
	00012-00014	3 mm LoE <sup>2</sup> 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	0.24	0.32	59
	00012-00015	3 mm LoE <sup>2</sup> 270/ARG/3mm Bronze	VY/VY	2	0.037(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.28	0.27	0.40	59
	00012-00016	3 mm LoE <sup>2</sup> 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	0.25	0.35	59
	00013-00001	2 mm LoE <sup>3</sup> 366/AIR/2mm Clear	VY/VY	2	0.022(2)	0.553	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.21	0.49	55
	00013-00002	2 mm LoE <sup>3</sup> 366/AIR/2mm Clear	VY/VY	2	0.022(2)	0.553	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.19	0.44	55
	00013-00003	3 mm LoE <sup>3</sup> 366/AIR/3mm Clear	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.21	0.49	55
	00013-00004	3 mm LoE <sup>3</sup> 366/AIR/3mm Clear	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.19	0.43	55
	00013-00005	2mm Clear/AIR/2 mm LoE <sup>3</sup> 366	VY/VY	2	0.022(3)	0.553	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.29	0.49	55
	00013-00006	2mm Clear/AIR/2 mm LoE <sup>3</sup> 366	VY/VY	2	0.022(3)	0.553	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.26	0.44	55
	00013-00007	3mm Clear/AIR/3 mm LoE <sup>3</sup> 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	N		CL	0.32	0.29	0.49	55
	00013-00008	3mm Clear/AIR/3 mm LoE <sup>3</sup> 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	CL	0.32	0.26	0.43	55
	00013-00009	3mm Gray/AIR/3 mm LoE <sup>3</sup> 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.32	0.23	0.33	55
	00013-00010	3mm Gray/AIR/3 mm LoE <sup>3</sup> 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.32	0.20	0.30	55

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	00013-00011	3mm Bronze/AIR/3 mm LoE <sup>3</sup> 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.32	0.24	0.36	55
	00013-00012	3mm Bronze/AIR/3 mm LoE <sup>3</sup> 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	BZ	0.32	0.21	0.32	55
	00013-00013	3 mm LoE <sup>3</sup> 366/AIR/3mm Gray	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	N		GY	0.32	0.20	0.33	55
	00013-00014	3 mm LoE <sup>3</sup> 366/AIR/3mm Gray	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	G	0.75	GY	0.32	0.18	0.30	55
	00013-00015	3 mm LoE <sup>3</sup> 366/AIR/3mm Bronze	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: AIR (100)	N		BZ	0.32	0.21	0.36	55
	00013-00016	3 mm LoE <sup>3</sup> 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	0.32	55
	00014-00001	2 mm LoE <sup>3</sup> 366/ARG/2mm Clear	VY/VY	2	0.022(2)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.21	0.49	59
	00014-00002	2 mm LoE <sup>3</sup> 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	0.19	0.44	59
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	00014-00005	2mm Clear/ARG/2 mm LoE <sup>3</sup> 366	VY/VY	2	0.022(3)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.30	0.49	59
	00014-00006	2mm Clear/ARG/2 mm LoE <sup>3</sup> 366	VY/VY	2	0.022(3)	0.553	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.28	0.27	0.44	59
	00014-00007	3mm Clear/ARG/3 mm LoE <sup>3</sup> 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		CL	0.28	0.30	0.49	59
	00014-00008	3mm Clear/ARG/3 mm LoE <sup>3</sup> 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	CL	0.28	0.27	0.43	59
	00014-00009	3mm Gray/ARG/3 mm LoE <sup>3</sup> 366	VY/VY	2	0.022(3)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.28	0.22	0.33	59
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	00014-00014	3 mm LoE <sup>3</sup> 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	0.18	0.30	59
	00014-00015	3 mm LoE <sup>3</sup> 366/ARG/3mm Bronze	VY/VY	2	0.022(2)	0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.28	0.20	0.36	59
	00014-00016	3 mm LoE <sup>3</sup> 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	0.18	0.32	59
	00015-00001	3mm Gray/ARG/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		GY	0.43	0.46	0.42	46
	00015-00002	3mm Gray/ARG/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	GY	0.43	0.41	0.38	46
	00015-00003	3mm Bronze/ARG/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	N		BZ	0.43	0.47	0.46	46

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	00015-00004	3mm Bronze/ARG/3mm Clear	VY/VY	2		0.514	SU-D	Fill 1: ARG/AIR (95/5)	G	0.75	BZ	0.43	0.42	0.41	46

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**Baseline Information**

<b>Test Lab</b>	<b>Test Date</b>	<b>Test Size</b>	<b>Tested U-Value</b>	<b>Standard U-Value</b>	<b>Test Report Number</b>
<b>TNCT</b>	<b>09/09/2011</b>	1200mm X 1500mm	0.310	0.310	NCTL-110-14261-1

**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: \_\_\_\_\_