

The Masters of Luminous Ceilings and Walls





Backlit Stretch Ceiling and Wall Systems

NEW/LIGHT	P. 6
NEW/LIGHT & NEW/ACOUSTIC	P. 8
NEW/LIGHT 3D	P. 11
NEW/LIGHT & NEW/GRAPHIC	P. 14
Light Transmission	P. 16
Lighting Guidelines	P. 18
Technical Details	P. 24
Profiles	P. 62
Membrane Options	P. 64

Client Northwest World Gateway / McNamara Terminal / Detroit, MI, USA Specifier SmithGroup / Architect Product NEW/LIGHT single-layer system using T0B2 / White Translucent membranes backlit with Color Kinetics projectors



NEW/LIGHT allows you to create beautiful and functional spaces using a variety of systems for backlit applications

NEW/LIGHT can be used for accent or main lighting with a variety of light sources, including natural, fluorescent, LED, halogen, neon, etc. Whichever light source you choose, the layout will be critical to the final outcome, since NEW/LIGHT is only a diffuser. Based on the light source, the NEW/LIGHT membrane, and the depth of your plenum, we will make recommendations for the ideal layout for your lighting design intent.

NEW/LIGHT offers numerous translucent membranes in various colors and light transmissions that will allow you to tailor your final result to meet your required lighting performance for color, evenness, and power.

For all horizontal NEW/LIGHT applications, we strongly recommend using a double-layer system. The main function of the upper layer is to act as a dust barrier and ensure the longevity of the aesthetics of the system. However, this second layer can also be used as an added diffuser if needed.



NEW/LIGHT & NEW/ACOUSTIC

NEW/LIGHT as a single or a double-layer system can be micro-perforated to become not only a lighting system but also an acoustical absorber.

Process

Through its patented micro-perforation technology, NEW/LIGHT can provide a variety of acoustical absorptions with or without acoustical backing material. Below are a few graphs of sound absorption for single and double-layer systems.



	4" Cavity Depth				6" Cavity Dep	th	8" Cavity Depth			
Freq.	Fill Arrangement				Fill Arrangem	ent	Fill Arrangement			
Hz	No Fill	1" thk, 6# F/glass	2" thk, 3# F/glass	No Fill	1" thk, 6# F/glass	2" thk, 3# F/glass	No Fill	1" thk, 6# F/glass	2" thk, 3# F/glass	
	Absorption Coefficient			Absorption Coefficient			Absorption Coefficient			
50	-0.03	0.13	0.08	0.21	-0.07	0.09	0.14	-0.14	0.04	
63	0.29	0.19	0.19	0.04	0.17	0.20	0.10	0.13	0.32	
80	0.21	0.26	0.29	0.28	0.27	0.30	0.24	0.27	0.21	
100	0.63	0.46	0.63	0.56	0.62	0.70	0.24	0.28	0.42	
125	0.31	0.33	0.39	0.67	0.63	0.77	0.36	0.51	0.69	
160	0.43	0.44	0.68	0.74	0.87	0.99	0.80	0.90	1.19	
200	0.36	0.42	0.87	0.71	0.85	1.09	0.62	0.76	1.06	
250	0.38	0.64	1.00	0.61	0.83	1.05	0.56	0.79	0.91	
315	0.51	0.84	0.98	0.65	0.74	0.85	0.50	0.58	0.67	
400	0.66	0.95	0.93	0.60	0.77	0.80	0.49	0.61	0.60	
500	0.62	0.77	0.78	0.51	0.60	0.65	0.42	0.48	0.55	
630	0.62	0.72	0.73	0.51	0.59	0.65	0.45	0.52	0.58	
800	0.63	0.67	0.72	0.54	0.62	0.68	0.53	0.62	0.66	
1000	0.70	0.72	0.77	0.69	0.73	0.77	0.67	0.74	0.76	
1250	0.73	0.74	0.76	0.71	0.77	0.77	0.69	0.73	0.75	
1600	0.64	0.65	0.66	0.64	0.67	0.67	0.63	0.66	0.65	
2000	0.57	0.57	0.58	0.55	0.58	0.57	0.55	0.58	0.57	
2500	0.48	0.48	0.48	0.50	0.50	0.49	0.48	0.49	0.48	
3150	0.40	0.42	0.42	0.44	0.42	0.42	0.42	0.43	0.43	
4000	0.36	0.36	0.36	0.40	0.36	0.36	0.38	0.39	0.40	
5000	0.33	0.33	0.33	0.41	0.34	0.35	0.38	0.39	0.39	
6300	0.26	0.26	0.26	0.40	0.22	0.27	0.32	0.32	0.37	
8000	0.20	0.20	0.17	0.36	0.12	0.21	0.32	0.32	0.36	
10000	-0.02	-0.02	0.05	0.38	-0.02	0.07	0.23	0.23	0.30	
NRC ¹	0.55	0.70	0.80	0.60	0.70	0.75	0.55	0.65	0.70	
SAA ²	0.57	0.68	0.77	0.60	0.69	0.75	0.55	0.63	0.69	
Test Environment Conditions ³										
Temp (°F)	70.5/73.5	70.5/73.5	70.5/73.5	71.5/72	70.5/72	70.5/73	70.5/72	70.5/72	70.5/73.5	
Humid (%)	57/60	57/60	57/60	59/63	57/61	57/61	57/57	57/57	57/56	
BP (%)	30.5/30.48	30.5/30.48	30.5/30.48	30.48/30.7	30.5/30.7	30.5/30.7	30.5/30.5	30.5/30.5	30.5/30.5	
Noise Redu	ction Coeffic	cient, NRC, per ASTN	/ C423.							
² Sound Absorption Coefficient, SAA, per ASTM C423.										

	4" Cavity Depth				6" Cavity De	pth	8" Cavity Depth		
Freq.	Fill Arrangement				Fill Arrangem	nent	Fill Arrangement		
Hz	No Fill	1" thk, 6# F/glass	2" thk, 3# F/glass	No Fill	1" thk, 6# F/glass	F/glass 2" thk, 3# F/glass		to Fill 1" thk, 6# F/glass 2" thk, 3# F/glas	
		Absorption Coefficient			Absorption Coel	fficient	Absorption Coefficient		
50	-0.08	0.11	0.09	-0.08	0.01	-0.03	0.07	-0.05	-0.29
63	0.20	0.18	0.24	0.24	0.17	0.12	0.13	0.15	0.12
80	0.33	0.28	0.30	0.18	0.29	0.18	0.15	0.27	0.12
100	0.49	0.60	0.56	0.57	0.46	0.68	0.18	0.26	0.36
125	0.23	0.32	0.45	0.54	0.62	0.73	0.33	0.47	0.54
160	0.40	0.45	0.60	0.66	0.75	0.92	0.57	0.68	0.96
200	0.31	0.47	0.71	0.57	0.72	1.00	0.49	0.66	0.96
250	0.30	0.55	0.95	0.47	0.69	1.02	0.50	0.74	1.00
315	0.41	0.74	0.99	0.50	0.69	0.86	0.44	0.58	0.74
400	0.52	0.85	0.99	0.52	0.74	0.87	0.42	0.63	0.72
500	0.55	0.80	0.83	0.46	0.64	0.70	0.37	0.49	0.58
630	0.55	0.76	0.78	0.47	0.61	0.69	0.38	0.50	0.59
800	0.55	0.66	0.71	0.45	0.55	0.64	0.38	0.51	0.60
1000	0.51	0.61	0.67	0.44	0.59	0.64	0.48	0.63	0.65
1250	0.44	0.54	0.62	0.41	0.57	0.58	0.48	0.60	0.61
1600	0.37	0.52	0.57	0.44	0.58	0.58	0.45	0.55	0.57
2000	0.42	0.55	0.54	0.44	0.57	0.57	0.44	0.54	0.55
2500	0.43	0.55	0.51	0.41	0.53	0.54	0.42	0.49	0.52
3150	0.38	0.51	0.47	0.40	0.48	0.46	0.40	0.45	0.47
4000	0.33	0.46	0.39	0.35	0.41	0.39	0.38	0.38	0.43
5000	0.27	0.44	0.35	0.31	0.35	0.33	0.35	0.36	0.39
6300	0.23	0.44	0.29	0.25	0.30	0.22	0.30	0.25	0.36
8000	0.12	0.41	0.18	0.19	0.20	0.14	0.28	0.19	0.31
10000	0.01	0.43	0.01	0.03	0.05	-0.03	0.23	0.04	0.22
NRC	0.45	0.65	0.75	0.45	0.60	0.75	0.45	0.60	0.70
SAA ²	0.45	0.63	0.74	0.47	0.62	0.72	0.44	0.58	0.67
Test Environment Conditions ³									
Temp (°F)	70.5/73	71.5/72.5	70.5/73	70.5/74	70.5/73.5	70.5/73.5	70.5/72	70.5/72	70.5/73.5
Humid (%)	57/61	59/65	57/61	57/60	57/60	57/58	57/57	57/61	57/55
BP (%)	30.5/30.48	30.48/30.48	30.5/30.48	30.5/30.7	30.5/30.7	30.5/30.7	30.5/30.5	30.5/30.48	30.5/30.5
¹ Noise Redu	¹ Noise Reduction Coefficient, NRC, per ASTM C423.								
² Sound Absorption Coefficient, SAA, per ASTM C423									

³Test environment conditions listed were those present during empty room measurements and during specimen measurement respectively (e.g., "empty room temp/room with specimen temp.")



一座孕育文化

A CANNAL OF CHEATION DEDICATED

NEW/LIGHT 3D

Because of their flexible nature, the NEW/ LIGHT membranes can be used to create shapes and forms for 3D applications. The lighting in this case must be strategically placed to minimize the shadows from the 3D structure.





Client Paris Ile de France Pavilion at 2010 World Expo / Shanghai, China Specifier MOSTRA / Architect Product NEW/LIGHT 3D system using T0B / White Translucent membranes with digital front and rear projection Client Centre Commercial Val d'Europe / Serres, France Specifier BENOY / Architect Product NEW/LIGHT double layer system using T0B3M/Soft White Translucent backlit with LED



NEW/LIGHT & NEW/GRAPHIC

The NEW/LIGHT membranes can be printed with a custom graphic of your choice. Please ask us for our requirements for the graphic file you will need to provide in order to achieve your design intent.



Client W Hotel / San Francisco, CA, USA Specifier Stanley Saitowitz Office / Architect Product NEW/LIGHT and NEW/GRAPHIC system using TOB / White Translucent membranes with custom print and backlit with LEDs



LIGHT TRANSMISSION.

Below is a table of the light transmissions for various NEW/LIGHT translucent membranes calculated at various distances. The table also provides the average light transmission between different distances.

	at 0"	A) at 24"	B) at 36"	C) at 53"	Average A - C	Average A - B - C	
Without membrane	7130	1546	798	541	1043.5	962	
тов	5750	797	458	303	550	519	
Transmission	81%	52%	57%	56%	53%	54%	
T0B 1320	6150	979	507	335	657	607	
Transmission	86%	63%	64%	62%	63%	63%	
T0B2	5850	958	445	297	627.5	567	
Transmission	82%	62%	56%	55%	60%	59%	
TOB 3M	6100	959	484	320	639.5	588	
Transmission	86%	62%	61%	59%	61%	61%	
TOB 3S	5970	930	480	317	623.5	576	
Transmission	84%	60%	60%	59%	60%	60%	
T0B 33006 Boréal	6030	955	492	322	638.5	590	
Transmission	85%	62%	62%	60%	61%	61%	
тов4	5650	913	458	292	602.5	554	
Transmission	79%	59%	57%	54%	58%	58%	
T0B5	5990	986	506	331	658.5	608	
Transmission	84%	64%	63%	61%	63%	63%	
тов6	6410	1203	629	418	810.5	750	
Transmission	90%	78%	79%	77%	78%	78%	
T1	6650	1429	752	497	963	893	
Transmission	93%	92%	94%	92%	92%	93%	
T10-1320	6820	1484	766	506	995	919	
Transmission	96%	96%	96%	94%	95%	96%	
T11	6640	1461	764	505	983	910	
Transmission	93%	95%	96%	93%	94%	95%	
тз	3500	646	331	211	428.5	396	
Transmission	49%	42%	41%	39%	41%	41%	
Т4	5190	908	470	306	607	561	
Transmission	73%	59%	59%	57%	58%	58%	
TX04	5800	926	460	295	610.5	560	
Transmission	81%	60%	58%	55%	59%	58%	

Light Transmission Testing on NEWMAT Translucent Membranes



LIGHTING GUIDELINES.

While we are not lighting designers, in order to assist you with your design of a NEW/LIGHT backlit application, we provide lighting guidelines to ensure that the final result meets your expectations.

 $The functional and a esthetic success of a {\sf NEW/LIGHT} backlit installation is entirely related to the design and specification of the lighting sources behind the {\sf NEW/LIGHT} membranes.$

NEW/LIGHT backlit applications may vary in the design and construction of the perimeter of the backlit area. Various options for same include the following: drywall coffers, free-floating lightboxes, free-floating panels/clouds, wall-to-wallceilings, prefabricated panels, etc.

Many types of light sources can be used to backlight a NEW/LIGHT application, which include but are not limited to: fluorescents, cold cathodes, neon, LED, pipe light, fiber optics, etc. Most applicationstodayuseLED fixtures, and becauseLED fixtures vary greatly from one manufacturer / system to another, we strongly recommend that you do a mock-up of your configuration with the exact LED fixture you will be using to determine the necessary depth of your plenum and the lighting layout of your LED fixtures.

Penetrations for sprinkler heads, HVAC registers, etc. can be made in a NEW/LIGHT system. However, the pipe, duct, and/or support for such penetrations must be painted white to minimize the shadow from same.

Before cleaning any ceiling membrane, it is important to know the nature of the soil. If the membrane is covered with only a small film of dust, you can use either a feather duster or a compressor and just blow the membrane evenly. If you try to use a micro-fiber towel with or without a cleaning product, you could make the situation worse. If the ceiling membrane has any soil other than dust, clean it with a micro-fiber towel only and a cleaning solution we will recommend based on the nature of the soil.

Formostbacklitapplications, accessibility is required to maintain or repair the light source behind the membrane. The procedure to remove and reinstall the membrane will vary depending on the system being used. We will provide you with the necessary instructions for accessing the light source behind your specific NEW/LIGHT system.





Client Spa Aquatic / Nantes, France Specifier Cabinet Enet Dolowy / Architect Product NEW/LIGHT and NEW/ACOUSTIC system using ACT0B3 / Soft White Translucent and ACT10 / Clear micro-perforated membranes Client Chanel Soho / New York, NY, USA Specifier Peter Marino Architect / Architect Product NEW/LIGHT double-layer system using T0B / White Translucent membranes backlit with fluorescents

MIJ

1

41

the

13125 1142 200 2,9,93 19,45

> 水市 A.) N 144

100-00

13.45

1

1112 1131 22.4

1.1.1.

3,2 . 9

111.

1001301301309 171.123.0400

mos

Sider, 1.9

22

4

1

0

R.

AAD

2

r

.

4

1

1 💶 🕯

m 122-

.

TAK

AI



Below are some of the details we have engineered for our projects. We often create and extrude new profiles to meet the design or technical needs of a specific project.



Client 800 North Glebe / Washington, DC, USA Specifier LSM Architects / Architect Product NEW/LIGHT 3D double-layer system using T0B / White Translucent membranes over aluminum skeleton backlit with fluorescents



Below are some of the details we have engineered for our projects. We often create and extrude new profiles to meet the design or technical needs of a specific project.



Client 7 Bryant Park / New York, NY, USA Specifier Pei Cobb Freed / Architect Product NEW/LIGHT 3D system with T0B3M / Soft White Translucent membranes over custom aluminum structure backlit with LED nodes



Below are some of the details we have engineered for our projects. We often create and extrude new profiles to meet the design or technical needs of a specific project.









Client Github / San Francisco, CA, USA Specifier Rapt Studio / Architect Product NEW/LIGHT 3D wall system using T0B1220 / White Translucent membranes backlit with LED strips

0

.

Client Nissan Crossing Ginza / Tokyo, Japan Specifier Eight Inc / Designer Product NEW/LIGHT double-layer system using T0B3S / Soft White Translucent membranes backlit with LEDs

sin

all's



Below are some of the details we have engineered for our projects. We often create and extrude new profiles to meet the design or technical needs of a specific project.



Client HCL America / Seattle, WA, USA

Specifier Weaver / Architect Product NEW/LIGHT double-layer free-floating lightbox system using T0B 1320 / White Translucent Wide Width and T1 / Natural membranes with custom aluminum fascias and backlit with LEDs



Below are some of the details we have engineered for our projects. We often create and extrude new profiles to meet the design or technical needs of a specific project.







Below are some of the details we have engineered for our projects. We often create and extrude new profiles to meet the design or technical needs of a specific project.



(2) CONFERENCE ROOM PARTIAL REFLECTED CEILING PLAN





Client Philip Lim / Los Angeles, CA, USA Specifier Leong Leong Architects / Architect Product NEW/LIGHT double-layer system using T0B /White Translucent membranes backlit with fluorescents



Below are some of the details we have engineered for our projects. We often create and extrude new profiles to meet the design or technical needs of a specific project.





Below are some of the details we have engineered for our projects. We often create and extrude new profiles to meet the design or technical needs of a specific project.





Below are some of the details we have engineered for our projects. We often create and extrude new profiles to meet the design or technical needs of a specific project.



Client The Gym / Englewood, NJ, USA Specifier HLW International / Architect Product NEW/LIGHT and NEW/ACOUSTIC double-layer system using ACT0B / White Translucent micro-perforated membrane with custom aluminum frame





48

Client Tastyworks / Chicago, IL, USA Specifier John Ronan Architects / Architect Product NEW/LIGHT 3D double-layer system using T0B / White Translucent membrane backlit with sporadic fluorescents





Below are some of the details we have engineered for our projects. We often create and extrude new profiles to meet the design or technical needs of a specific project.





Client University of Arkansas / Fayetteville, AR, USA Specifier Polk Stanley Wilcox Architects / Architect and Renfro Design / Lighting Designer Product NEW/LIGHT and NEW/ACOUSTIC double-layer system using ACT0B3 / Soft White Translucent and T1 / Natural membranes



Below are some of the details we have engineered for our projects. We often create and extrude new profiles to meet the design or technical needs of a specific project.





Below are some of the details we have engineered for our projects. We often create and extrude new profiles to meet the design or technical needs of a specific project.





3 ENLARGED TYP. PANEL SECTION



Below are some of the details we have engineered for our projects. We often create and extrude new profiles to meet the design or technical needs of a specific project.







Client 605 Third Avenue / New York, NY, USA Specifier Rockwell Group / Architect Product NEW/LIGHT 3D double-layer system using T0B3 / Soft White Translucent and T11 / Clear Frosted membranes with custom aluminum skeleton backlit with VLT LED panels

34-44

00

άL

34

άL







PROFILES.

NEWMAT offers more than 40 different profiles in either PVC or aluminum. They are chosen for a project based on their aesthetic, technical, and/or curving abilities. NEWMAT often produces custom profiles to meet the specific design requests of our clients.





MEMBRANE OPTIONS.





T10

T11

TO35



тов





TOB5

TOB6



TOB1320









NEWMAT USA 81 Mahan Street, West Babylon, NY 11704, USA Tel : 631-261-1498 / Fax : 631-261-1756 newmat@newmatusa.com

www.newmatworld.com