



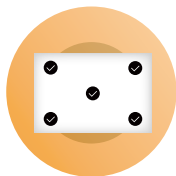
OMIS

OMIS

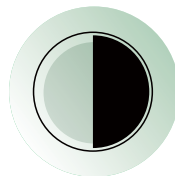
Optical Microcrystalline Cinema Screen Featuring 4.0/5.0 Screen Gain



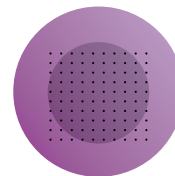
4.0 /5.0



95% Brightness
Uniformity ^



Up to 3,700:1
Stereoscopic Contrast



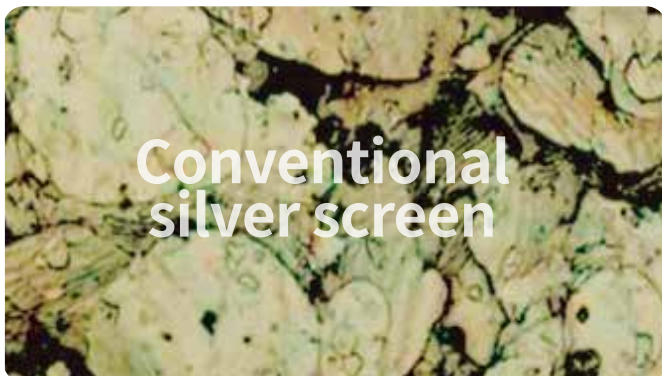
0.2mm Perforation
Diameter



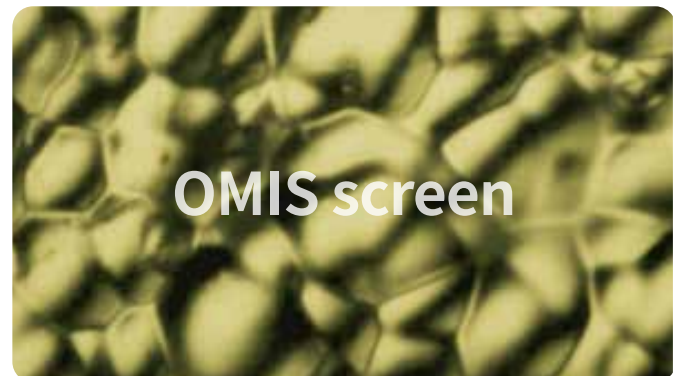
Cleanable
Surface

Unleash the true power of your cinema projection with the OMIS screen. Designed for both cinema xenon lamp and laser projectors, the OMIS delivers incredible 2D and 3D motion pictures. Setting itself apart from conventional high-gain silver screens, the OMIS offers superior picture presentation with a greater viewing angle without a noticeable hotspot. Its reflective layer, crafted from rare metal materials, achieves a remarkable 4.0/5.0 gain, resulting in a bright and vivid image. With a microstructure design and precisely layered microcrystals, the OMIS showcases razor-sharp images with high brightness uniformity and contrast. Additionally, laser projectors can take advantage of its exceptional de-speckle feature, ensuring a flawless projection experience. Ideal for large-scale visual displays, the OMIS boasts a maximum screen width of 38m, ensuring stunning image quality for auditoriums of any size.

Microstructure Design



Aluminum is randomly sprayed from different angles on the surface of the PVC substrate leading to inconsistencies in image performance across the screen



The microcrystals are precisely layered on the surface of the PET substrate eliminating ghosting

Gain 4.0/5.0

The OMIS screen has an approximate screen gain of 4.0/5.0. The reflection efficiency of the OMIS is as high as 92% whereas a conventional silver screen is approximately 50% resulting in 1.8 times greater brightness. Depending upon the circumstances and size of the auditorium, the OMIS can help improve image quality and reduce the need for a high-brightness projector. Using a lower-wattage projector could potentially result in lower power consumption and hence lower cost of ownership.

95% Brightness Uniformity[^]

The OMIS screen has regularly arranged microcrystals on the surface, which achieves brightness uniformity of up to 95% and reduces hotspots. The feature is comparable to the image quality of a white screen.



Darker in the corners



Even brightness

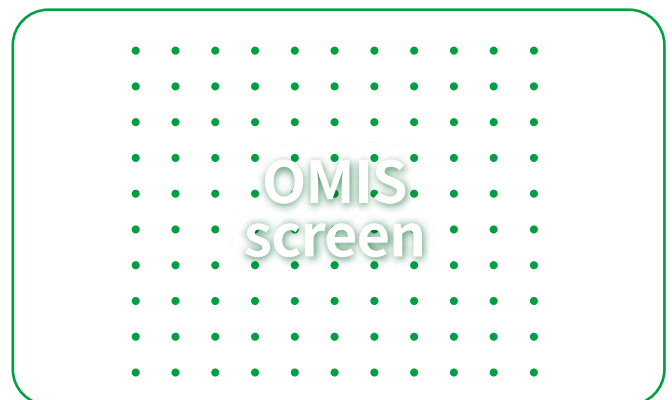
[^]Measurements are taken at different points on a screen by placing the screen in front of a projector with a parallel light source, fixed position, constant brightness, and unchanged distance.

0.2mm Perforation Diameter

The OMIS screen perforation diameter of only 0.2mm produces images of unparalleled sharpness and clarity resulting in a resolution of $\geq 145\text{lp/mm}$. It is 1.8 times when compared to a conventional silver screen with a perforation diameter of 1.0-1.2mm resulting in a resolution of $\geq 80\text{lp/mm}$. Thanks to the OMIS small perforation, it effectively avoids the Moiré pattern and allows moviegoers to see the tiniest details, while still maintaining excellent sound transmission.



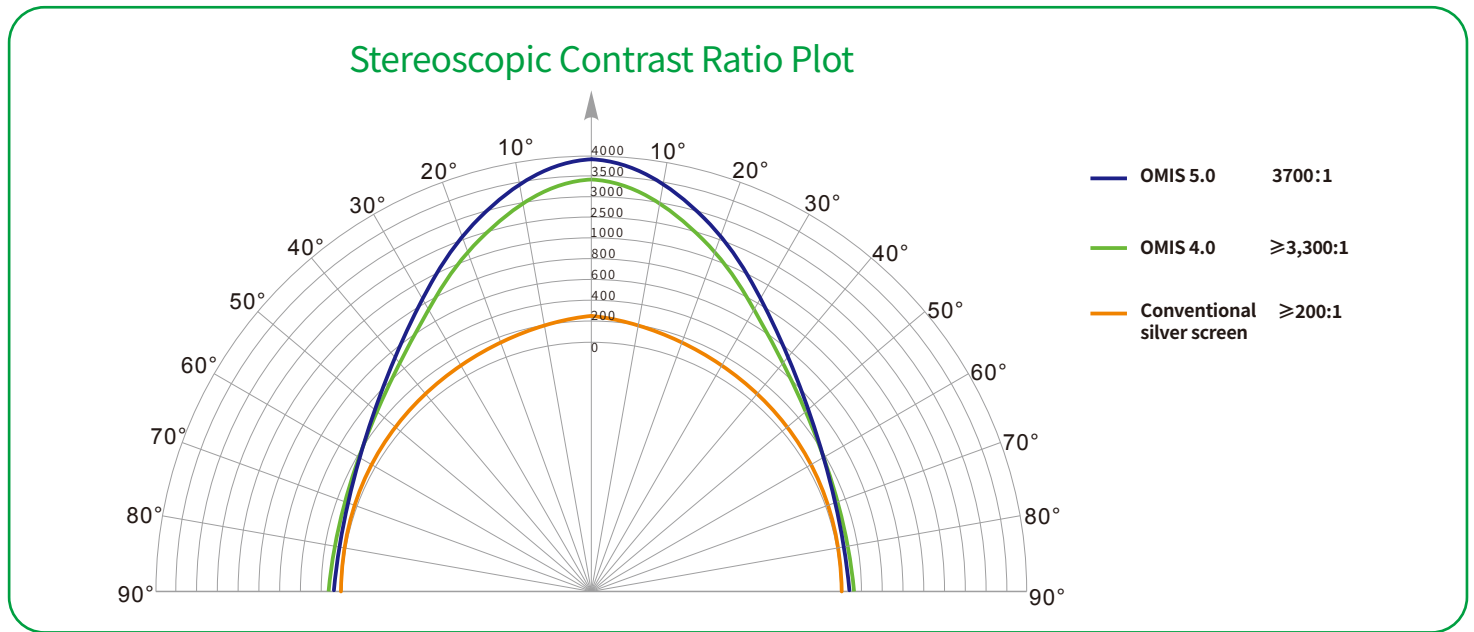
1.0-1.2mm



0.2mm

3,700:1 Stereoscopic Contrast Ratio

The stereoscopic contrast ratio of the OMIS screen is up to 3,700:1, which is better than that of a conventional silver screen with a gain of 2.2/2.4. Even at a viewing angle of 120%, you can still see the ideal 3D picture without ghosting.



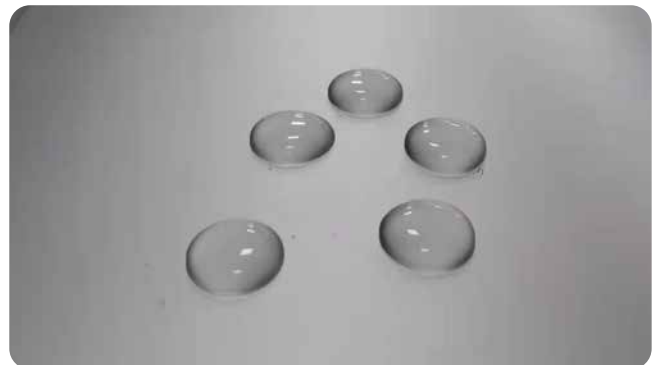
Substrate Made of PET

The substrate of the OMIS screen is made of PET (polyethylene terephthalate) material produced through magnetron sputtering, which is odorless, non-toxic, environmentally friendly, and commonly used for making mineral water bottles. It withstands long-term use temperatures up to 120°C, has low water absorption, good chemical stability, and electrical insulation.

In contrast, the substrate of a conventional silver screen uses PVC (polyvinyl chloride) material containing epoxy resin solvents and metal powder, which emits odors and poses potential eye hazards. It is toxic, environmentally unfriendly, and subject to restrictions or prohibitions in regions like Europe and Japan. Additionally, PVC has poor stability to light and heat, starting to melt at 77°C, releasing hydrogen chloride, and causing discoloration.

Cleanable Surface

The OMIS screen is designed for moisture-proof, dust-proof, oil-resistance, and high-temperature resistance (patent: CN202220817309.X). With conventional silver screens, when the air-conditioning is turned off and temperatures change, water vapor tends to condense on the screen, leading to the formation of mold and incurring cleaning and maintenance costs. The feature of moisture-proof allows the OMIS to require minimal cleaning and upkeep. To clean general dust and dirt on the OMIS, users can simply use a dry, lint-free microfiber cloth to wipe them away. Depending on the nature of the stain, users can apply water or 75% alcohol directly to the screen surface. When wiping the screen, users need to wipe in one direction using a lint-free microfiber cloth.



Specifications

	Conventional silver screen	OMIS 4.0 screen	OMIS 5.0 screen
Material	PVC	PET	
Gain	2.4±0.2	~4.0	~5.0
Contrast Ratio	150:1	≥3,300:1	3700:1
Perforation Diameter (mm)	1.0	0.2	
Thickness (mm)	0.3-0.35	0.2	
Maximum Weight (kg/m2)	0.5	0.45	
Maximum Size (m)	Height: 25m Width: (1.85 Flat) 46m; (2.39 Scope) 60m	Height: 16m Width: (1.85 Flat) 30m; (2.39 Scope) 38m	
Viewing Angle (2α)	≥40°	≥44°	≥40°
Brightness Uniformity	85%	95%	
Resolution	≥80lp/mm	≥145lp/mm	
Reflective Rate	50%	92%	
Surface Hardness	H	3H	

Packing

- Screens will be packed in cardboard tubes.
- Wooden pallets and wooden crates are available.



OMIS