CERATMOS®

DIFFUSION PANEL

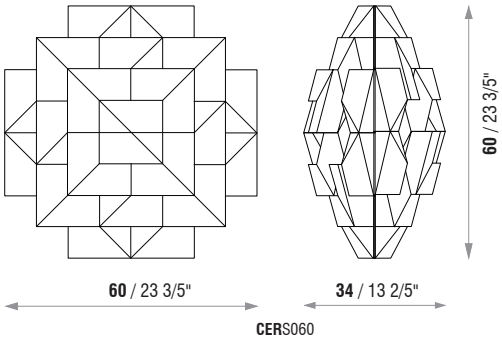
SPHERICAL

Image of CERATMOS®. S - spherical model (on the left).

DESCRIPTION

CERATMOS®is a spherical tridimensional diffusor especially dedicated to Audio Dolby Atmos control rooms. There are two versions of this model: spherical and half-spherical. The Spherical is meant to hang from the ceiling whereas the half-spherical is to be set on the surfaces of walls or ceilings. This device was designed to enhance the acoustic quality of a multi-source control room, like Dolby Atmos. It consists of a spherical shape with intricate surface patterns that evenly scatter sound waves in all directions. This diffusion process helps to minimize flutter echoes and standing waves, modal resonances and hot spots, by breaking up direct reflections and redirecting sound energy, thus promoting a more balanced and natural sound field. CERATMOS® leads to an improved sound division of each channel source clarity, definition, and spaciousness of audio. A reflected sound field from a convex spherical surface is unquestionably better than concave surfaces that cause several interferences. Jocavi has developed this model from the shape of a sphere, slightly ovalized to better adapt the scattering coefficient angles to the scale and size of control rooms. We adapted and segmented the curved shape of a sphere into small and flat elements, replacing the convex curved surface by small flat plans such as rectangles, trapezoids, and triangles, thus emphasizing and consequently better controlling the scattering factor. This segmentation positively influences the accuracy calculation of the focal point of incidence, i.e., of the sweet spot. This spherical diffuser has a wide scattering diffusion coefficient according to Dolby Atmos rooms' characteristics. Its depth results in a focused effect taking multi-source surround sound systems into account. CERATMOS® is consequently a secondary source that will radiate acoustic pressure to the receptor position, allowing it to form a larger hearing warhead in the position of the receptor (sweet spot), perfectly integrated with the several sound speaker sources. These strategically well positioned diffusers contribute to better distinguish the sound of each channel where accurate sound reproduction is crucial.

TECHNICAL DRAWINGS



CERS060

FEATURES

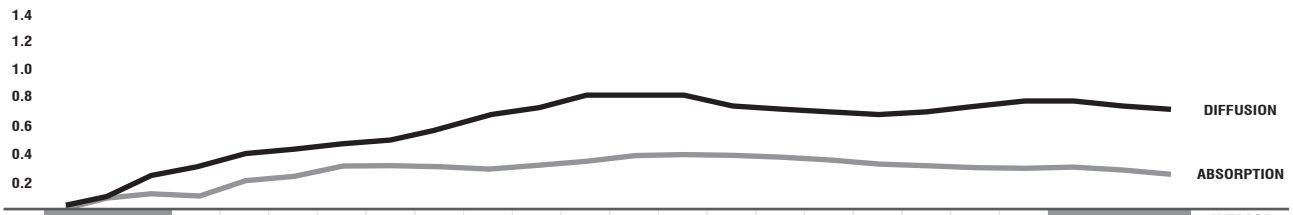
- Dedicated to Audio Dolby Atmos
- to be hanged from ceilings
- larger hearing warhead in the sweet spot position
- Average diffusion: **0.68/m²** [>500Hz;<5KHz]
- NRC: **0.14/m²** [>250Hz;<10KHz].
- Fire-resistance: V0 - UL94 standards
- Installation: accessories included.
- Manufactured in HIPS.
- 100% recyclable.

MODELS AND SIZES

MODELS	HEIGHT	WIDTH	DEPTH	WEIGHT
CERS060	**60 cm** (23 3/5")	**60 cm** (23 3/5")	**34 cm** (13 2/5")	**5.3 Kg** (11 lbs 1oz)

DIFFUSION - ABSORPTION COEFFICIENT

	0.04	0.14	0.29	0.33	0.42	0.45	0.47	0.50	0.58	0.63	0.70	0.78	0.80	0.78	0.72	0.70	0.69	0.67	0.69	0.71	0.75	0.76	0.74	0.71	0.73
αS	0.00	0.01	0.05	0.11	0.19	0.21	0.30	0.31	0.28	0.26	0.31	0.34	0.40	0.41	0.39	0.36	0.34	0.30	0.28	0.27	0.26	0.28	0.26	0.22	0.31



Hz	50	63	80	100	125	160	200	250	315	400	500	630	800	1k	1.25k	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	AVERAGE /NRC

ABSORPTION COEFFICIENT: Values in accordance with the standards: EN 20654, ASTM C423 and EN 11654.

DIFFUSION COEFFICIENT: These values were obtained by mathematical calculations and tests carried out in our laboratory.

Values [<100Hz and > 5K] are Non Standard Values.

STANDARD HIPS COLOURS

YELLOW	ORANGE	RED	GREEN	BLUE	PURPLE	LILAC	BROWN	CREAM	BLACK	LIGHT GREY	WHITE
Similar to RAL 1003	Similar to RAL 2008	Similar to RAL 3001	Similar to RAL 6001	Similar to RAL 5013	Similar to RAL 4005	Similar to RAL 4009	Similar to RAL 8017	Similar to RAL 1001	Similar to RAL 9005	Similar to RAL 7042	Similar to RAL 9003

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