

Pluma Acoustics



Material Data Sheet

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Acoustic mycelium-based products

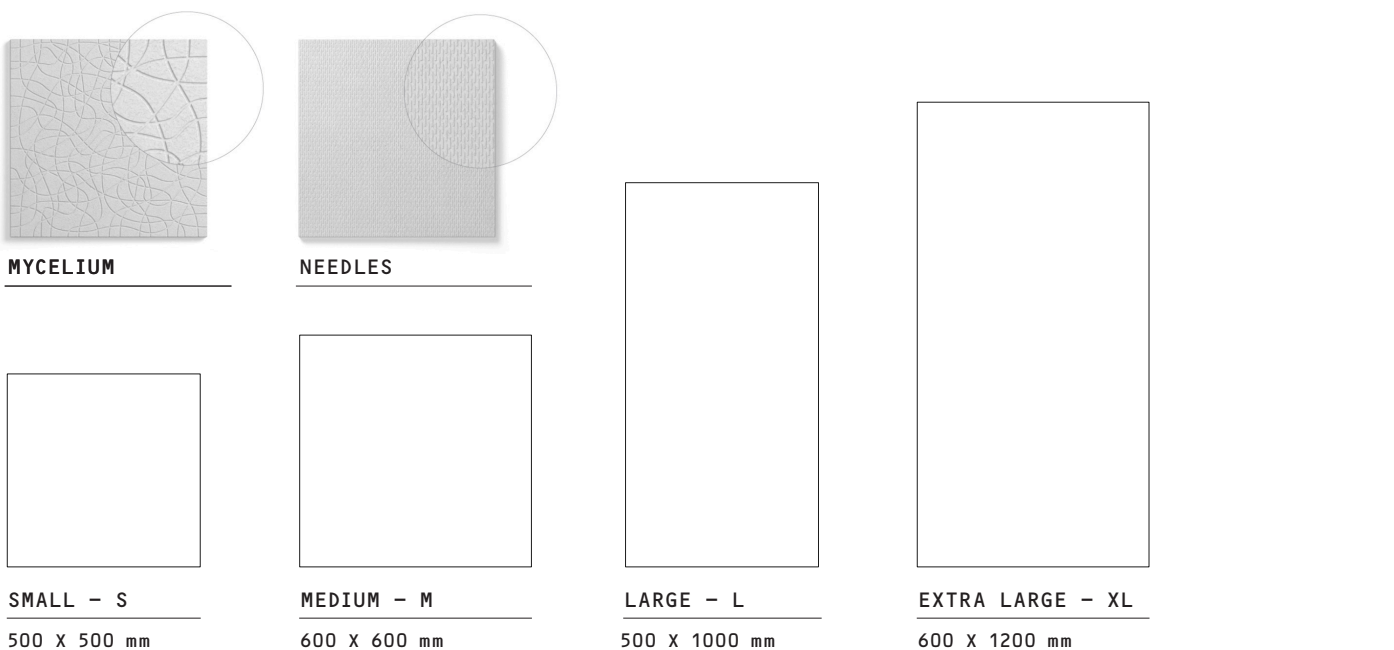
Mogu PLUMA is a new collection of 100% circular, slim wall-covering panels, with sound-absorbing properties.

A revolutionary new collection of totally eco-friendly panels, which combines astonishing Natural technologies with human ingeniousness and engineering.

A pioneering product capable of providing an innovative and natural look to all interiors, while enhancing the everyday life thanks to its unique aesthetics and acoustic performance.

Mogu PLUMA panels are designed to provide all spaces with an innovative, yet natural look.

Texture & dimentions



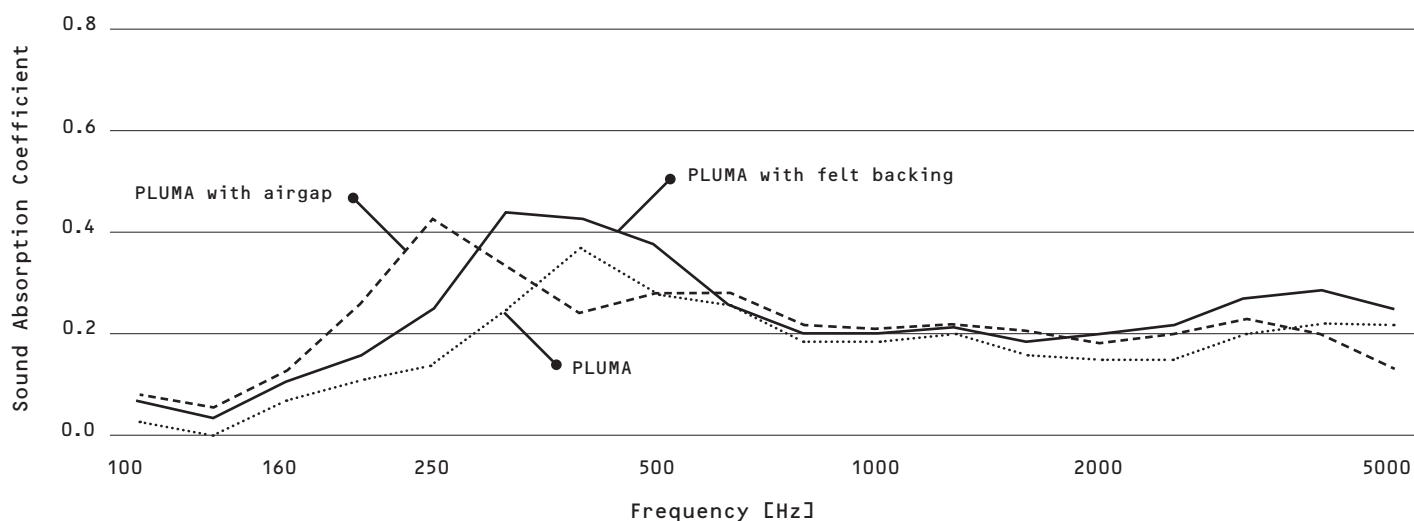
Dimensions & weight

	w* [mm]	h* [mm]	t* [mm]	sqm	n°/sqm	weight* [Kg/m2]
PLUMA S	500	500	20/30/40	0.25	4	1.0/1.2/1.6
PLUMA M	600	600	20/30/40	0.36	3	1.2/1.5/1.8
PLUMA L	500	1000	20/30/40	0.50	2	2.0/3.0/3.5
PLUMA XL	600	1200	20/30/40	0.72	1.4	3.2/3.6/4.0

Panels are also available in custom sizes.

* Mogu Acoustic panels may present slight dimensional variations as they are subject to the tolerances of the natural production process that characterise and enhance Mogu's products. However Mogu carries out a very strict dimensional control to ensure a dimensional variation of maximum +/- 2.5 mm.

Acoustic performance



Acoustic characteristics

	t [mm]	α [125 Hz]	α [250 Hz]	α [500 Hz]	α [1000 Hz]	α [2000 Hz]	α [4000 Hz]
PLUMA	20	0.05	0.1	0.3	0.2	0.2	0.2
PLUMA with airgap (30 cm)	20 + 30	0.1	0.4	0.3	0.2	0.2	0.2
PLUMA with felt backing (2 mm)	20 + 2	0.05	0.3	0.4	0.2	0.2	0.3

Measurements according to ISO 354 - Reverberation Room Measurement Method.

Reaction to fire & standards

	Fire-proof	Only color	Natural
Classification	B-s2-d0*	C-s2-d0*	D-s2-d0*
Finishing	water-based, eco-friendly, non-halogenated, heavy-metals free	water-based 2K paint, low VOC	none
Texture	compact and tough, available in any NCS color	compact and tough, available in any NCS color	white with small tone variations, slightly soft
Moisture sensitivity	RH > 50%	RH > 80%	RH > 80%

Physical appearance & performance

Product type	wall, ceiling/false ceiling panels for interior design	Thermal Conductivity UNI EN12664-2	0.050 W/mK (34 mm thickness)
Color	any NCS color from Mogu Acoustic palette or custom color	TVOC emission rate ($\mu\text{g}/\text{m}^2\text{h}$)**	15
Odor	none with finishing; medium smell with natural touch	VVOC emission rate ($\mu\text{g}/\text{m}^2\text{h}$)**	none determined
Density	240 kg/m ³	SVOC emission rate ($\mu\text{g}/\text{m}^2\text{h}$)**	none determined
Fire Reaction UNI EN 13501-2	B-s2-d0*		
UV resistance UNI EN 15187	excellent [grey: 5/5; blue scale: >6]		

* Official Fire Reaction test results will be available upon request.

** Results for VOC emissions based on 28-days chamber testing. Official results according to Indoor Air Comfort test by Eurofins.

Mogu was founded on the belief that it is possible to employ Nature's intelligence to radically disrupt the design of everyday products, seeking a finer balance between the man-made and the rhythms of the natural ecosystem.

Mogu products are obtained by growing mycelium, the vegetative part of mushrooms, on organic fibres (low-value residues from agro-industrial value chains).

The products are the result of five years of continuous and iterative R&D on mycelium technology, guided by a strong product-driven approach.

