



# ALPHA **Acoustic** - Woollen

ACOUSTIC CREATIONS WITH WOOL FELT

## DESCRIPTION

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**ALPHA**coustic-Woollen is a new series of acoustic creations using specially treated sheep wool felt (Wool Felt). This natural acoustic product is made from sustainable woollen fibers and can be used in a wide range of applications, including hanging panel systems from ceiling, intermediate vertical interior partitions, wall panels in combination with other sound-absorbing materials, the coverage of some furniture surfaces and many other applications according to the imagination and requirements of each customer.

Its natural fibers come from a rapidly renewable resource (hair that grows naturally in sheep), due to the composition of natural wool it is considered to be biodegradable. Wool Felt Design contributes to green building certification LEED® and Building Research Establishment Environmental Assessment Method BREEAM for Health and Wellbeing.

Due to their very good acoustic properties, creations using woollen felt can reduce annoying noise reflections and resonant acoustic field, improving acoustic comfort, offering a better acoustic environment. These panels can be produced in many shapes and shades (based on our very rich color palette) so that they can meet the high architectural requirements of each project.



The application possibilities are only limited by your **imagination** and **creativity**.

## ACOUSTIC CHARACTERISTICS

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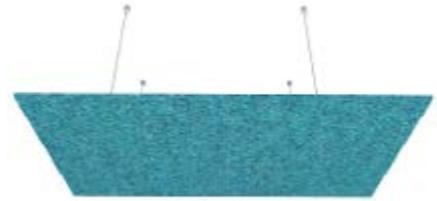
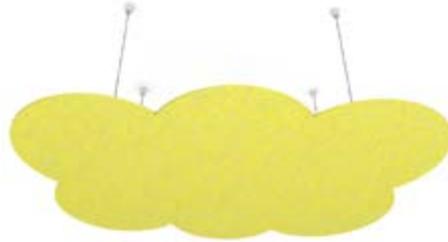
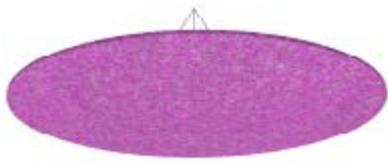
Due to the low air resistance and sound absorption properties of the “natural wool felt”, **ALPHA**coustic-Woollen are designed to achieve sound absorption at a wide frequency range. More specifically, the material, with a thickness of 3.5 mm, was tested on a frame closed at the side with a distance of 20 cm to the surface of the room, according to ISO 354.2003 and ISO 11654.1997, and the weighted sound absorption coefficient was  $\alpha_w=0.45$ .

In addition, wool felt can be combined with extra sound-absorbing layers (i.e. polyester slabs or rockwool) on the back side so that it can achieve weighted sound absorption coefficient  $\alpha_w=1$  at sound absorption Class A.

Our team of acoustic engineers can assist in choosing the acoustic panels with the most adequate sound absorption index for your project.

## CEILING IDEAS

**ALPHAcoustic-Woollen.Fly** is a new series of acoustic flying ceiling panels, suspended with steel cables that can provide sound absorption overhead, both as a single object or as a group, with colorful and modern aesthetics.



## WALL IDEAS

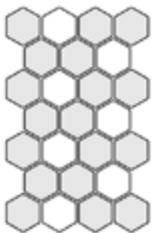
**ALPHAcoustic-Woollen.Wall** is a wall-mounted acoustic system available in customizable dimensions and shapes, satisfying the aesthetic and acoustic needs of every space.



*By imitating the shape of a Ginkgo leaf we are able to create various combinations, blending Japanese tradition with a contemporary European perspective.*

## WALL APPLICATION

- Pattern Ideas



- Wall Fixing

Wool felt creations can be mounted on the wall very easily, having a self-adhesive tape on the back. All you need is to evaluate your dimensions, choose the size of the panel and the cutting pattern if necessary, then peel the liner and apply the panel on the wall. Alternatively, the installation can be carried out using biodegradable liquid adhesive.

## PARTITION IDEAS

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**ALPHAcoustic-Woollen.Diviso** is a suspended acoustic divider system designed to provide varied degrees of privacy and flexible space division with visual and acoustic separation, but at the same time keep the open space feeling.

These freely hang suspended Dividers can offer transparent acoustic solutions.

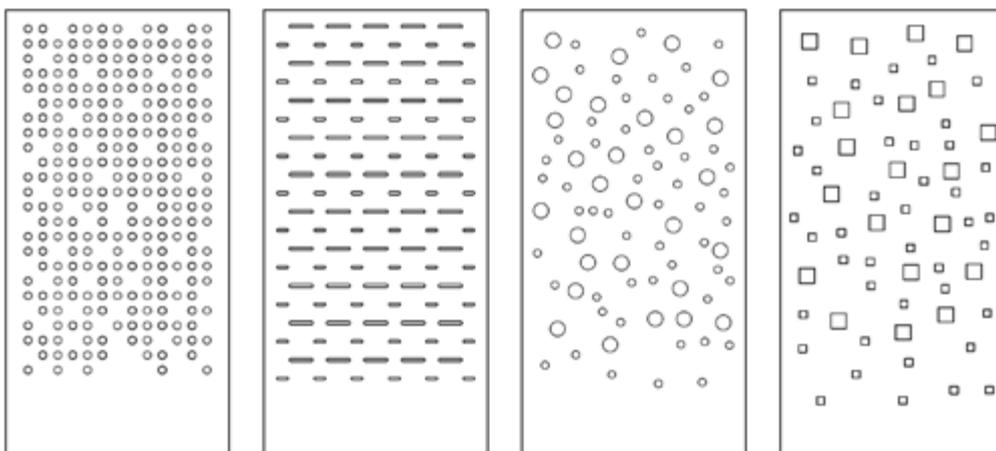
**ALPHAcoustic-Woollen.Diviso.F** is a Fix hanging partition that is suspended by means of steel cable directly from the ceiling.



- Standard sizes: 73 x 240 cm & 145 x 240 cm. Other dimensions upon request
- Alignment blade: A metal blade can be feet at the lower part of the divider to allow the Hanging Panels to hang straight. A similar blade can be adjusted at the top to facilitate the hanging of the panels.

*As wool felt is a natural material some movement and irregularity may occur.*

- Pattern Ideas



Custom options sizes and patterns can be define by the client.

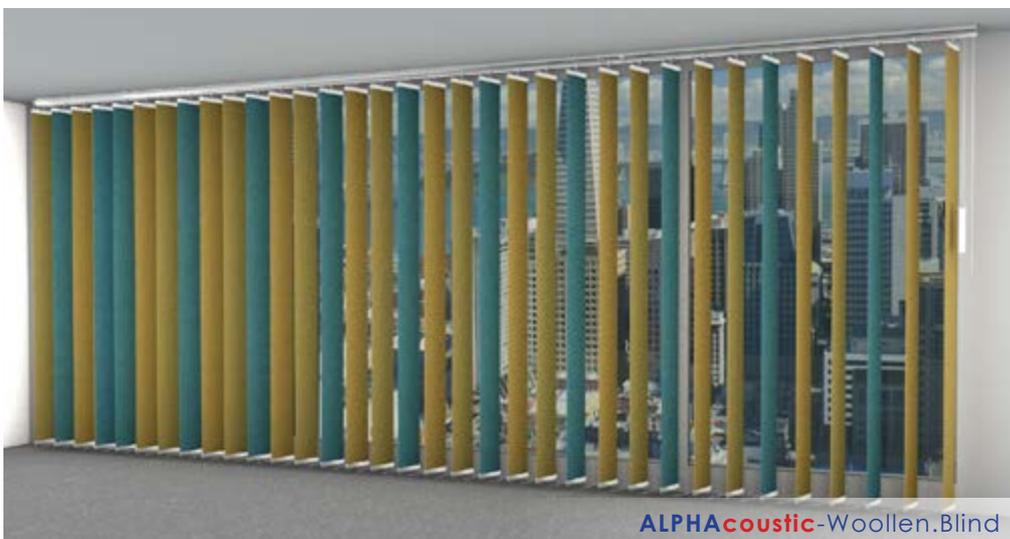
## MOVABLE PARTITION IDEAS

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**ALPHAcoustic-Woolen.Diviso.S** is a Sliding suspended divider system. It includes a rail track system (up to 5 channels) and is an efficient solution in order to quickly open and close off area and maximize space.



**ALPHAcoustic-Woolen.Blind** are rotating sound absorptive vertical blinds made of woolen felt that can be mounting in front of translucent glass surfaces offering sound and light diffusion for privacy and comfort.



Our R&D department can also design and produce bespoke solutions.

## NATURAL WOOL FELT PROPERTIES



**As natural as possible:**  
sheep's wool,  
a regenerative raw material

### Wellness

Sheep wool has many natural properties that prove to be beneficial for our health, well-being and comfort. Wool products, for example, can offer UV protection, moisture control, thermal insulation, breathability, acoustics and the absorption of toxic chemicals into the atmosphere. Main Environmental Friendly, contains no formaldehyde, 100% VOC free, no chemical irritants, and free of harmful substances.

### Air purification

The wool naturally repels dirt and naturally regulates indoor air humidity, while it is resistant to moths. Thus, sheep wool is a non-allergenic natural product. It can absorb up to a third of its weight in water and release it again. It is also able to filter formaldehyde from the air and transform it into harmless substances.

### Natural flame retardant

Natural wool is widely recognized as the most flame retardant. This property in terms of flame comes from the natural high content of nitrogen and water in its fiber. Because of this, wool requires higher levels of oxygen in the environment to burn.

### ECO Biodegradation

Wool is made mainly of keratin, the same protein as human hair. The wool grows naturally in sheep, as our hair grows longer. Through biodegradation, microorganisms in soil or water dissolve matter and transform it (biodegradable matter). These microorganisms dissolve during their life cycle.

### Antistatic

The wool retains its internal moisture, making it less prone to static electric charge. This is an important factor in the operation of an electrical / electronic equipment.

## TECHNICAL CHARACTERISTICS

Composition	90% WO - 10% PL	
Standard thicknesses	3.5 mm, 5.5 mm, 6.5 mm	
Width	150 cm	
Sound Absorption	$\alpha_w = 0,45$ (H) (ISO 11654)	
Flammability	Cigarette Test (EN 1021-1) (BS 5852 ign. 0) - Pass Match Test (EN 1021-2) (BS 5852 ign. 1) - Pass Classe 1 IM (UNI 9175/ 1987) - Pass	
Color fastness to light	4-5 (UNI EN ISO 105 B02)	
Care Instructions*		*For more specific cleaning instructions, please refer to our technical department at <a href="mailto:tech@alphacoustic.com">tech@alphacoustic.com</a>
Colour Matching	Batch to batch variations in shade may occur with commercial tolerances.	

*Color Variation Wool felt is a natural material and color variation is evidence of its natural origin. For this reason, the color codes of the product are only indicative. Variations in temperature and humidity can expand or contract the fibers affecting the size and shape of the felt.*

### Maintenance

Vacuum regularly. Wipe clean with a damp cloth or shampoo using proprietary upholstery shampoo.

# COLOR CODES

Selecting the right color combinations for your project, could be a great way to set the mood and tone of your designs. Here is our **ALPHA**coustic-**Woollen** wide range of colors.



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In TUNE with YOUR needs

**ALPHA ACOUSTIKI** Ltd combines technical experience and scientific knowledge of its Engineers who are specialized in the field of room acoustics since 1980.

We create workplaces where people choose to work, tailored to the specific requirements of each job, with particular attention to the acoustic necessities of the employee.

## DESIGNING FOR WELL-BEING

Please be informed about the rest of our creations in acoustic panels such as:

- **ALPHA**acoustic-Fabric
- **ALPHA**acoustic-Fos

Our technical department ([tech@alphacoustic.com](mailto:tech@alphacoustic.com)), would be happy to help you improve the Architectural Acoustics in your project.



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