



TRANQUIL[®]
ACSILO
Cellulose Fiber Acoustic Spray



Acsilo Acoustic Spray products are environmentally friendly acoustic insulation materials that can be used in new and renovated buildings. It can be used in a wide range of building groups, from industrial buildings to residential buildings, because of its ease of application and compatibility with architectural detailed solutions.

CELLULOSE FIBER ACOUSTIC SPRAY



Cellulose Fiber Acoustic Spray is an environmentally friendly and sustainable material made from recycled fibers and boron salts using advanced technology. It has excellent acoustic and thermal insulation properties.

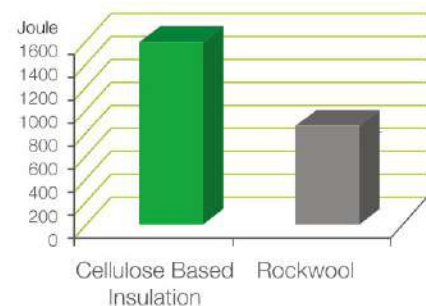
The cellulose wool is sprayed in fiber form onto the desired surface.

The first applications of cellulose-based insulation began in the 1970s in the United States and spread throughout the world due to its ecological and sustainable nature.

TECHNICAL SPECIFICATIONS

TS EN 13501-1 (Reaction to Fire)	: B
TS EN 12667 (Thermal Conductivity X)	: 0.037 W/(m-K)

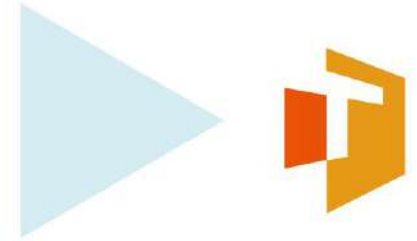
THERMAL CAPACITY



Thermal Volume is the amount of energy required to heat or cool one kilogram of material by one degree Celsius. The material will be more insulating if the value is high. Glasswool has a thermal capacity of 670 joules per kg, while rockwool has a capacity of 860 joules per kg. According to EN ISO 10456, the thermal capacity of cellulose-based insulation products is close to 1600 joules per kg (A performance 2-2.5 times better than their substitutes).

Natural, Durable, and Risk-free Sound Absorption

This spray plaster is primarily made up of recycled natural cellulose fibres. By combining it with additives, Acsilo Spray improves serviceability and fire safety. Acsilo Spray is a sprayed water-based polymer. We used borates to a bare minimum, well below the EU limit of 5%. As a result, our contractors and customers can trust Acsilo spray.



APPLICATIONS

Acoustic spraying can be used almost anywhere, including new and old buildings, along with horizontal and vertical surfaces made of identified roof panels, concrete, and plasterboard.

Acsilo acoustic solutions offer limited design freedom while still providing good speech intelligibility, high concentration levels, privacy, and thus a high level of comfort.

PRODUCTS (Based on surface finish)

PEEBLE



- ▶ Spray structure of medium fineness
- ▶ Thicknesses range between 10mm and 50mm.
- ▶ Alpha up to $w = 1.035\text{mm}$
- ▶ Quick processing
- ▶ Can be applied on pipes if they are directly attached to substrate.
- ▶ Simple to repair locally
- ▶ Available in all colors

GRAVEL



- ▶ Flat finish
- ▶ Thicknesses ranging from 5mm to 25mm are available.
- ▶ Prompt processing
- ▶ Suitable for all flat non-working surfaces.
- ▶ Available in all colors

SAND



- ▶ Delicate spray structure.
- ▶ Thicknesses ranging from 5mm to 45mm.
- ▶ Quick processing
- ▶ Can be applied on pipes if it is attached directly to the substrate.
- ▶ Available in all colors
- ▶ Simple to repair locally

BENEFITS OF ACSILO ACOUSTIC SOLUTIONS

Acsilo improves room acoustics with its acoustic and directional sound absorbing properties. Acsilo provides maximum absorption with minimal height loss. Since it is spray based it is long-lasting, reduces reverberation, and saves energy. Acsilo's acoustic products comes in a wide range of colours and are suitable for a variety of substrates. The Advantages of Acsilo are:

- ▶ Lowers reverberation in any room.
- ▶ Maximum absorption with least amount of height loss.
- ▶ Appropriate for all surfaces, including ceilings and walls.
- ▶ Provides design freedom and durable.
- ▶ Results in energy savings of 5% to 10%.
- ▶ Available in any color and surface finish ranging from coarse-grained to smooth surface.
- ▶ Furthermore, acoustic spraying and plastering are very easy to maintain and come with a standard 2 years warranty on adhesion and acoustic effect.

PERFORMANCE

- ▶ Made from recycled paper.
- ▶ Non-flammable and fire-resistant material.
- ▶ There will be no sound or heat bridges because the insulated surface or volume is sprayed or laid.
- ▶ Excellent acoustic performance and loss of airborne sound between the spaces.
- ▶ It is long-lasting and requires no maintenance.
- ▶ Excellent loss of airborne sound between the spaces.
- ▶ Absorbs VOCs (Volatile Organic Components) and toxins in the air.
- ▶ It does not collapse or wear out as a result of dusting.
- ▶ The thermal capacity of cellulose is 2-2,5 times better than their substitutes with excellent thermal performance in both winter and summer.
- ▶ No convection occurs.
- ▶ It breathes and has a high vapour permeability.
- ▶ Resistance to erosion.
- ▶ Has the ability to absorb and release moisture without affecting thermal performance.
- ▶ Electrical resistance and energy conservation.



HEALTH

- ▶ It poses no risk to human health.
- ▶ Does not itch or irritate.
- ▶ Absorbs VOCs and toxins from the air.
- ▶ It is free of toxins and allergens.
- ▶ Rot-resistant, inhibiting fungi, microorganisms, and pests.

NRC

Thickness (mm)	125hz	250hz	500hz	1000hz	2000hz	4000hz	NRC
10	0.12	0.19	0.44	0.80	0.81	0.99	0.55
15	0.15	0.26	0.65	0.95	0.95	1.02	0.71
20	0.20	0.32	0.76	1.02	1.00	1.02	0.80
25	0.24	0.49	0.92	1.05	1.02	1.01	0.86
30	0.31	0.73	0.97	1.00	1.00	0.94	0.95

INSTALLATION

The material is sprayed and adhered to the surface using the installation machine. This method is used on inner and outer walls, prefabricated buildings, and corrugated roofing sheets, among other things.

MAINTENANCE

The material is simple to clean with a vacuum and a soft brush. If the plaster is damaged, it is simple to repair locally.

Tranquil offers a 2-year warranty on Acsilo Spray adhesion and acoustic performance.







TRANQUIL[®]
ACSILO Plus+
Seamless Acoustic System

Acsilo Plus+ is a high-performance acoustic system that absorbs noise in a variety of settings. Its highly absorbent properties as an acoustic plaster solution applied to ceilings and walls enable ideal acoustic control in large commercial spaces.

Acsilo Plus+ Acoustics can be applied to almost any surface, including straight and curved walls, striking angles, and arching roofs, making it a more versatile, distinct alternative to traditional acoustic solutions such as suspended ceilings.

The Acsilo Plus+ Plaster system, which combines high-value aesthetics and acoustic performance, is well-suited to a wide range of developments, including historic structures as well as high-end residential, commercial, retail, and educational spaces.

ACSILO Plus+ *Seamless Acoustic System*

Acsilo Plus+ acoustic panels have a resin-bonded fiberglass core. The fiberglass is cut into various shapes & sizes applied with a Acsilo Plus+, and finally transformed into high-performance sound-absorbing panels.

SPECIFICATIONS

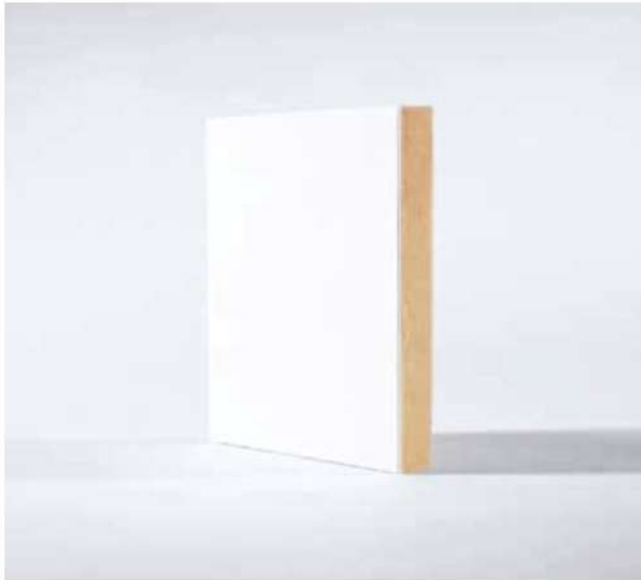
- ▶ Material : Fiberglass wool panels with acoustic plaster.
- ▶ Light Refractive : 0.87
- ▶ Fire Rating : Class "A" as per ASTM E-84 Tunnel Test
- ▶ Sound Absorption : NRC upto 1.05
- ▶ Asbestos - free
- ▶ Recycled Component: 59%
- ▶ Density : 100-150 kg/m³ (+/-10%)
- ▶ Color : White and custom colors
- ▶ Warranty : 2 Years Limited Product Warranty.
- ▶ Hygiene : No sustenance to micro-organisms.
- ▶ Moisture and Sag Resistance RH99 : Resistance to humidity RH99% at 35°C which maintains dimensional stability and no sagging.
- ▶ Cleanability : Surface dust & dirt can be vacuumed off using a soft brush attachment or blown off using pressurised air.
- ▶ Bright, White Textured Visual appearance : White NCS S 0300-N RAI 9003 Light Reflectance 87%.
- ▶ Mold/Mildew Resistance: Substrate is inherently resistant to growth of mold and mildew.

Acsilo Plus+ is distinguished by three key characteristics:

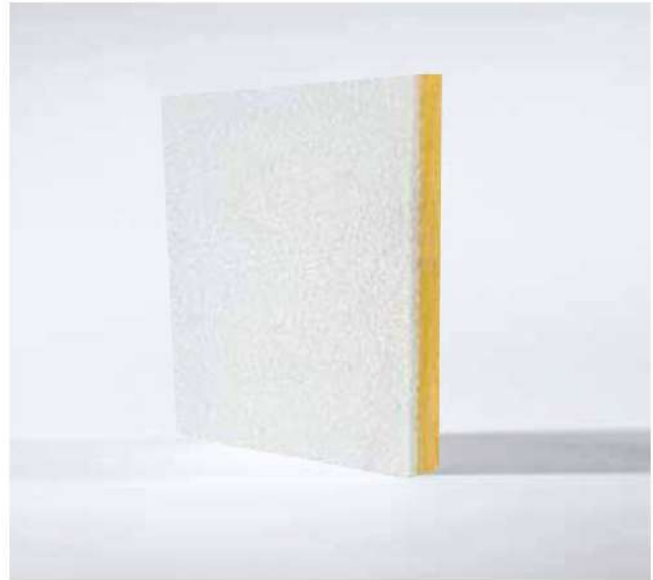
- ▶ Class A Fire Resistance
- ▶ EN 13501-1 100%Relative Humidity EN 13964
- ▶ Excellent Acoustic Performance EN ISO 11654



Acoustic Plaster+ Acoustic Fiberglass Panel



Acsilo Plus+ Acoustic Smooth



Acsilo Plus+ Particles Finish

DESCRIPTION OF THE PRODUCT

- ▶ Fiberglass Wool Panels
- ▶ Inorganic acoustic painted surface
- ▶ Thickness: 25mm, 40mm, and 50mm
- ▶ Sizes: 1200X1200mm / 1200X2400mm
- ▶ Color: White (WH)
- ▶ Square edge
- ▶ Stable: Light steel keel system

BENEFITS

- ▶ A seamless sound absorption system .
- ▶ Bendable, with free-flowing transitions in different height planes.
- ▶ Reflectivity (LR0.86) reduces energy and electricity costs by 18%.
- ▶ Sound transmission technology coatings allow sound to pass through.
- ▶ Organic dry powder coating with low VOC of 0.004%
- ▶ RH99 humidity resistance
- ▶ Extra strong sound absorption function with clarity level of 190-200 & noise reduction coefficient of 0.80-1.05

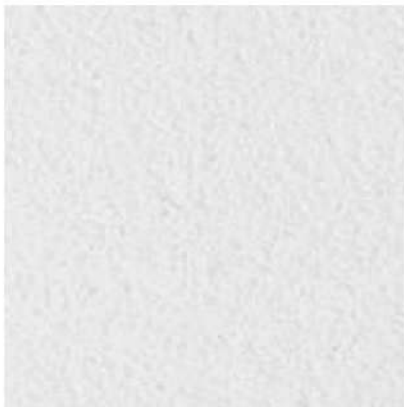
ACSILO Plus+ *Seamless Acoustic System*



TEXTURE

The ACSILO Plus+ are high quality and microporous plaster manufactured, using only high quality materials produced from natural Inorganic mineral powder perlite and zeolite, to ensure the best acoustical performance when installed onto ceilings or walls.

ACSILO Plus is a spray applied & custom color system.



Acsilo Plus+ Smooth



Acsilo Plus+ Natural



Acsilo Plus+ Coarse

ACSILO Plus+ Smooth is finished with a smooth fine grain finish giving a consistent, smooth look to the surface.

ACSILO Plus+ Natural is finished with a natural fine grain finish giving a natural spray look to the surface.

ACSILO Plus+ Coarse is finished with a little coarse structure giving a textured look to the surface, making it ideal for areas with more natural look.

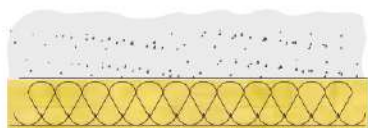
NRC

Fiberglass wool Acoustical panels	Size (mm)	Thickness (mm)	NRC	Light Reflection	Fireproof Class	Recycled Content
Thickness 25mm	1200x1200mm	25	0.8	83%	A2_s1d0	59%
	2400x1200mm					
Thickness 40mm	1200x1200mm	40	0.90	83%	A2_s1d0	59%
	2400x1200mm					
Thickness 50mm	1200x1200mm	50	1.05	83%	A2_s1d0	59%
	2400x1200mm					



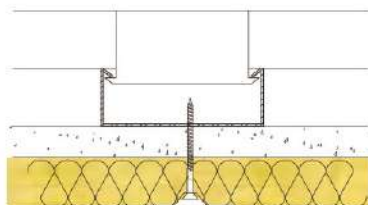
INSTALLATION SYSTEMS

Type 1



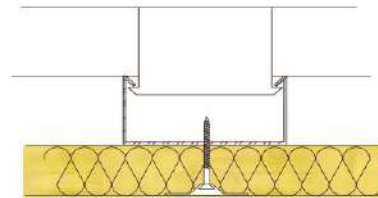
Concrete direct bonding
with accessories and glue

Type 2



Metal suspension grid
Light steel keel
with Gypsum board
Special washers screws

Type 3



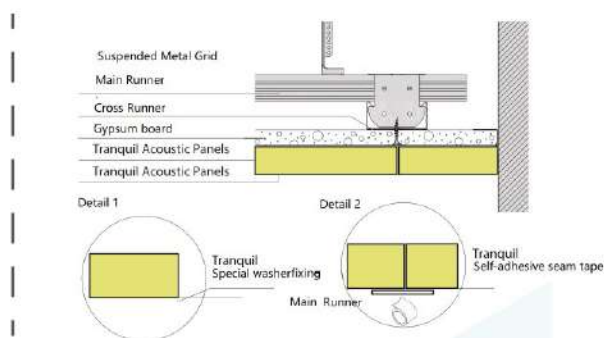
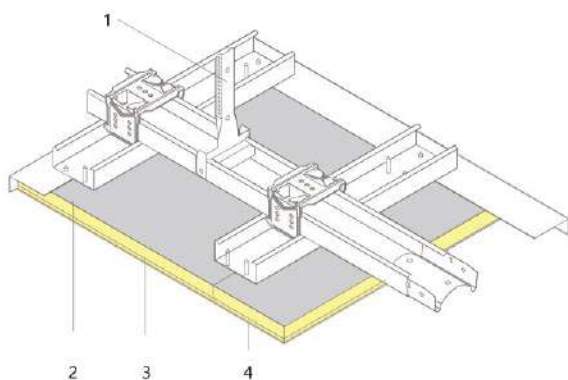
Direct, Metal suspension grid
Light steel keel
Special washers screws

TYPE 1 INSTALLATION

Directly to a suitable substrate installation:

Install the acoustic panels mechanically with special metal fixings or install the acoustic panel with approved adhesive on the suitable substrate.

TYPE 2 INSTALLATION



1. Suspended Metal Grid
2. Gypsum board, calcium silicate board base layer
3. Tranquil acoustic panels
4. Acsilo Plus+ Acoustic Plaster

TYPE 3 INSTALLATION

Installed directly on metal suspension grid mechanically with special washes, screws and steel keel.