Superior acoustic performance

Acoustic documentation

100% Flame retardant polyester fibres

Formability strong/non-tear

Thin product - 2.5 mm

Breathable diffusion open

Textile-like no skin irritation

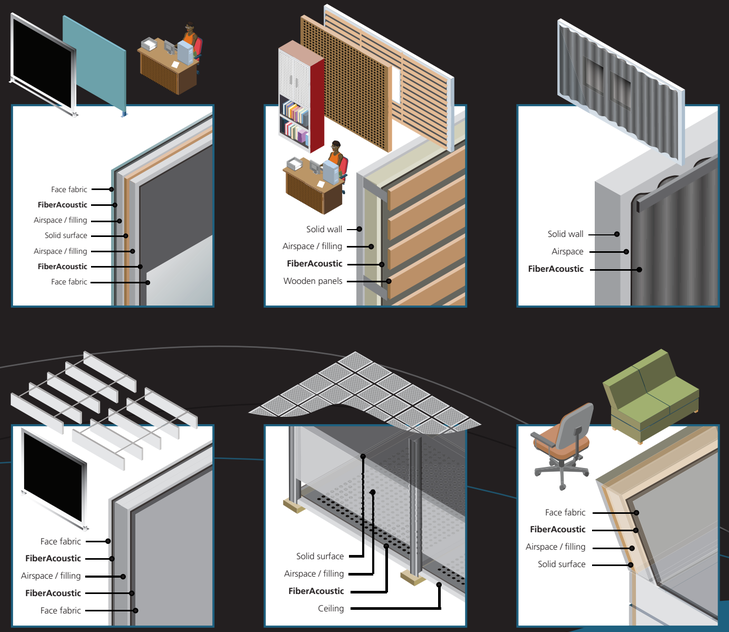
No need for face mask and gloves

Easy to process cut, punch, sew, glue, staple, weld

100% recyclable environmentally friendly

Fibertex NONWOVENS

Examples of how to integrate FiberAcoustic®



Fibertex is certified according to DS/EN ISO 9001 and 14001. Q-Match® - digitally integrated quality management system - provides instant electronic control of product quality and process capability.

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Facts about Fibertex

The Fibertex Group is a market leading manufacturer of needlepunch and spunmelt nonwovens for industrial, technical and and hygiene applications. With corporate office in Aalborg, Denmark, and manufacturing sites in Denmark, Malaysia and the Czech Republic, Fibertex is globally represented. Since its foundation in 1968, Fibertex has continuously expanded and today manufactures nonwovens for customers all over the world for many different applications.

Fibertex NONWOVENS

FIBERTEX NONWOVENS

Making the perfect match

FiberAcoustic®

Noise Absorbing **Nonwovens**
for **Furniture, Building** and **much more.**

www.fibertex.com

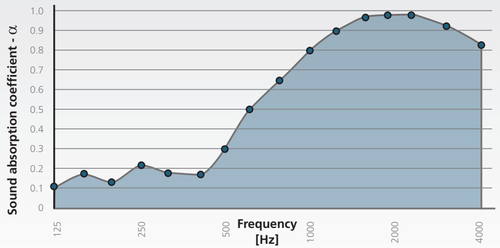
Fibertex NONWOVENS

Comfort of Silence

Up to 97% sound absorption. FiberAcoustic® applies best-in-market value with second-to-none acoustic performance

Black FiberAcoustic® FR PET 451

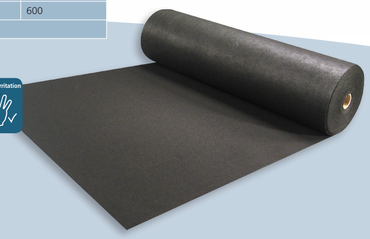
Frequency - [Hz]	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000
Sound absorption - α	0.10	0.17	0.13	0.21	0.18	0.17	0.30	0.49	0.65	0.80	0.90	0.96	0.97	0.97	0.92	0.83



Material absorption coefficient In accordance with ISO 10535-2 and GB/T 18696.2-2002
FiberAcoustic® FR PET 451 with 27.5 mm airspace into solid surface

FiberAcoustic®	Standard	Unit	Value MD/CD
Weight	EN 29073-1	g/m²	450
Breaking strength	EN 29073-3	N	425/800
Elongation at break	EN 29073-3	%	80/55
Thickness	EN/ISO 9073-2	mm	2.5
Acoustic impedance		Ns/m³	600
Fibre blend	100% polyester, flame retardant		

MD: Machine direction CD: Cross direction



What is sound absorption?
Sound is pressure waves travelling through air. Sound absorption is the absorption of sound waves in a material and is the process where sound energy is dissipated into heat energy.
The sound absorption properties of a material are characterised by the sound absorption coefficient, α, and vary from 0 to 1.0. Sound absorption of a material is frequency dependent.

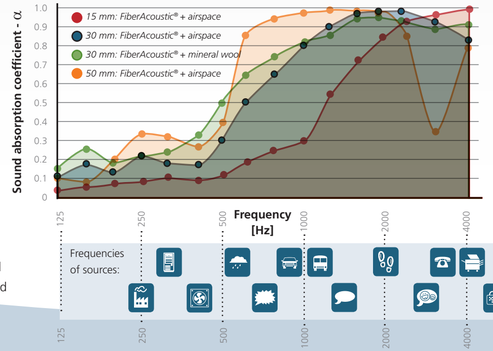
α = 1.0 equals 100% sound absorption
α = 0.0 equals 0% sound absorption

What is FiberAcoustic®?
Fibertex has developed and tested a new nonwoven material - FiberAcoustic® - which applies up to 97% sound absorption to any source of noise providing a reduction of noise level never seen or heard before.

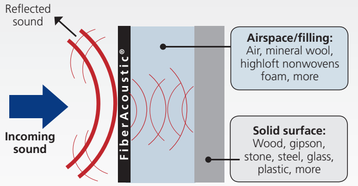
The unique properties are accurately documented and provide second-to-none sound absorption. The material is textile-like and easy-to-process: glue, sew, staple, weld and cut. When handling - no need for face mask and gloves.

How does FiberAcoustic® work?
When a sound wave strikes a surface of a material it is either reflected or penetrates into the material. If the acoustic impedance of the material is too high the sound wave is reflected. If the acoustic impedance is low sound waves enter the material. FiberAcoustic® is a novel nonwoven sound absorber specially developed for optimal acoustic performance due to tuned acoustic impedance.

The FiberAcoustic® acoustic impedance is low enough to ensure that minimum sound is reflected and accurately high enough to ensure that maximum sound energy is converted into heat - while letting a broad spectrum of sound wave frequencies enter the material.



Why airspace behind FiberAcoustic®?
The airspace behind FiberAcoustic® is essential for the acoustic performance, since it controls at what frequency maximum sound absorption is obtained. Wide airspace means absorption at low frequencies; narrow airspace means absorption at high frequencies.



When a sound wave has entered the surface, the optimal acoustic impedance of FiberAcoustic® ensures that sound waves are encapsulated in the airspace behind FiberAcoustic®. Sound energy is removed by sound waves hitting forth and back between a solid surface and FiberAcoustic®.

Airspace or filling?
The airspace behind FiberAcoustic® can either be air or filling. With air as space FiberAcoustic® ensures high acoustic performance, whereas filling moves the initial absorption slope towards even lower frequencies.

Call us for more specifications and input
Please mail us at fibertex@fibertex.com if you need further specifications and specific input as to how FiberAcoustic® can be integrated in your solution.