



# Acoustic Fabrics. Made by Camira.



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# Made for eyes & ears

Fabrics made by Camira, ideal for covering screens, panels, pods and walls. Let us show you why some fabrics should be seen but not heard.





**Product**  
Blazer Lite

**Product**  
Era, Rivet and Synergy

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# Made to be sensitive

Noise doesn't just annoy, it can affect human health, comfort and productivity, both in the workplace and in public spaces. A successful acoustic fabric should allow sound to pass through clearly, or provide a degree of absorbency, allowing the specialist acoustic system behind to do its job.

**Products**  
Carlow and Era 66

**Acoustic Fabrics. Made by Camira.**

**When sound hits a surface, part of its energy is absorbed and part is reflected back.**

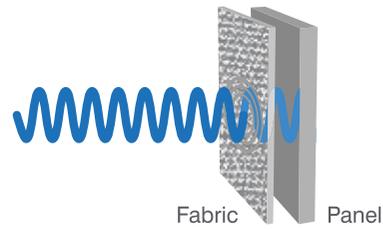
At the two extremes, think of a swimming pool reflecting sound from the water surface and tiled walls creating noisy echoes. At the other end of the scale is fresh deep snow with its sound deadening absorbent properties, making any noise seem eerily quiet.



Images: Maria Svarbova

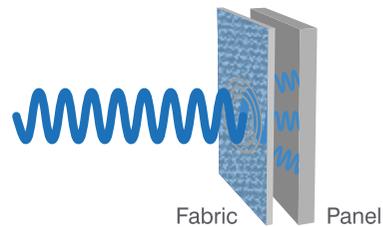
## Acoustically transparent

Good



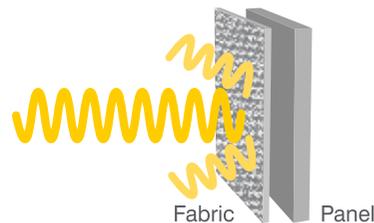
## Acoustically absorbent

Good



## Sound reflection

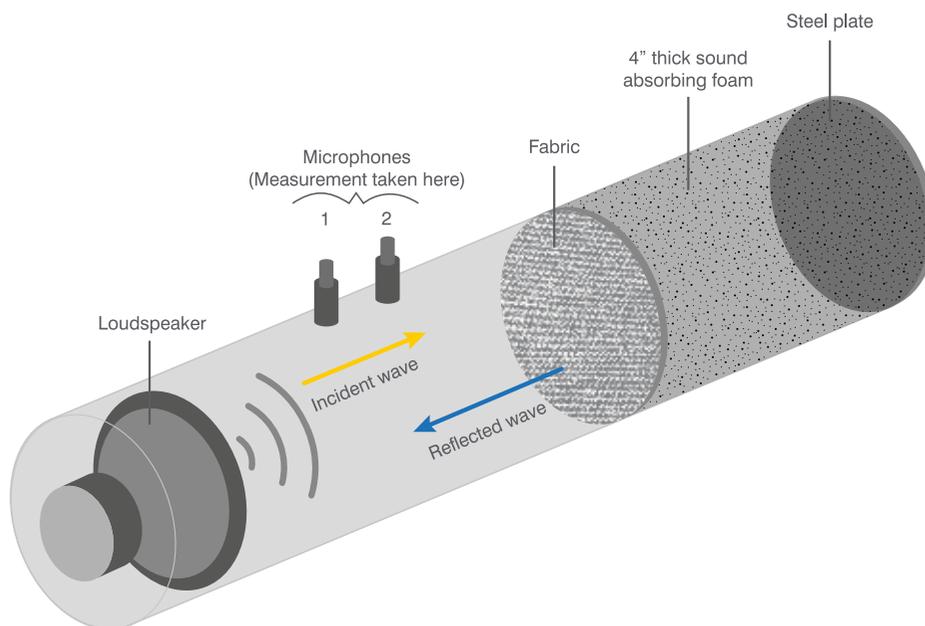
Bad



# Which acoustic test do we use?

## ISO 10534 Part 2

This test measures the acoustic absorption of a fabric together with a 4 inch thick sound absorbing foam, to create a benchmark. This data is compared to the absorption of the foam in isolation. The sound is either partly absorbed by the fabric or passed through the fabric and absorbed by the foam but most importantly, not reflected back. The test demonstrates how well the fabric complements the performance of the acoustic board.



## Glossary

### Frequency

The number of sound waves repeated in a set time, measured in Hertz (Hz). One Hertz equals one cycle per second.

### Absorption

How much a given material can convert sound energy into heat/mechanical energy, therefore reducing the levels of sound within an environment.

### Reflection

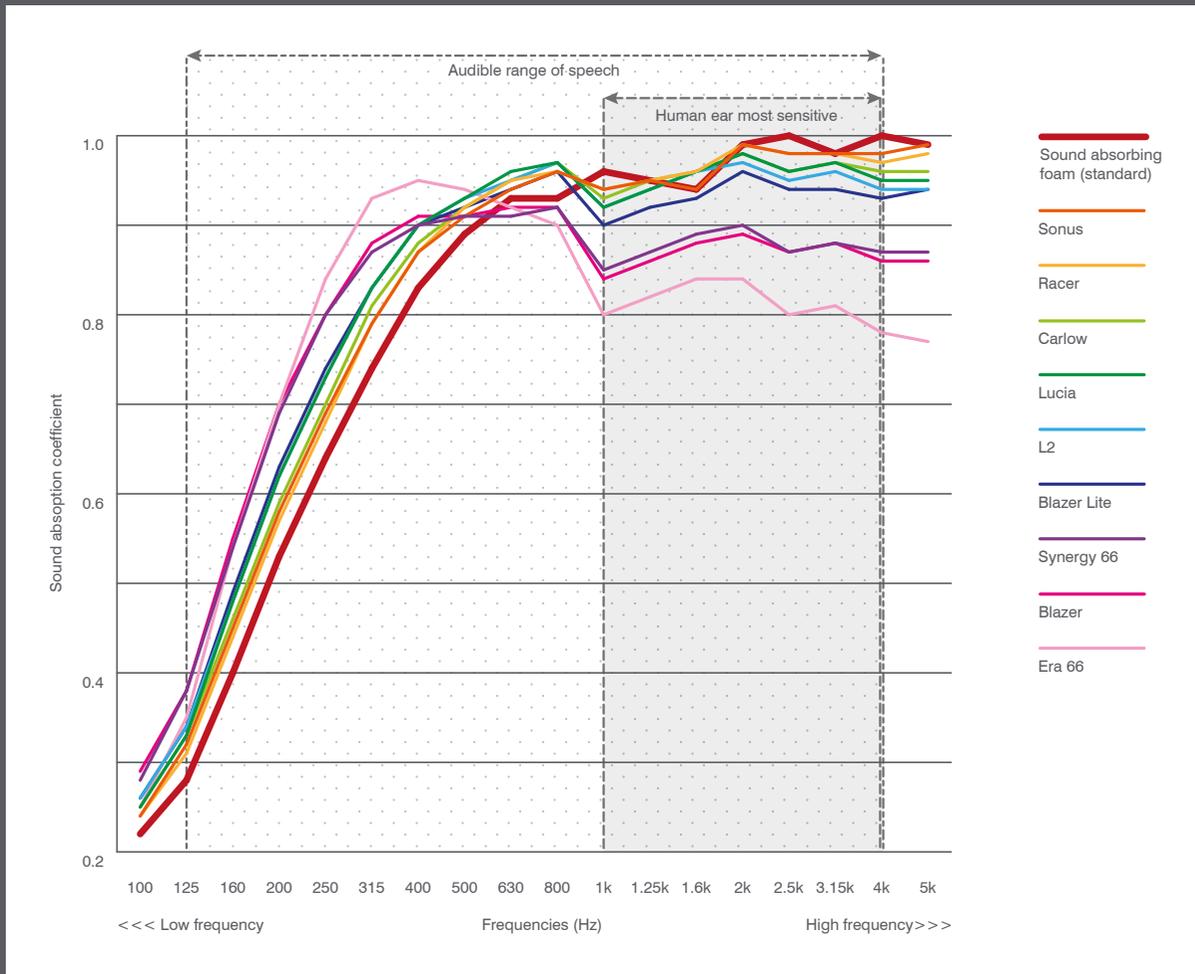
The redirection of sound waves when they hit a given surface. Residual sound waves will continue to bounce around a room until they have lost all their energy. Repeated reflection leads to reverberation which can cause an echo effect.

### Transparency

How easily a material allows air, and therefore sound, to pass through.

# Our results

## ISO 10534 Part 2



## Explanation

The graph shows that at lower frequencies, the addition of all Camira fabrics improves the performance of the foam, shown by the sound absorption lines of the fabrics appearing slightly higher than that of the foam. Although only moderate, fabrics such as Blazer, Synergy and Blazer Lite show some extra absorption at play.

At higher frequencies, transparency becomes more important. The most transparent fabrics can be seen in the graph as those that are closest to the red line. This suggests that products like Lucia, L2, Carlow, Racer and Sonus can be considered as significantly transparent. All fabrics in the graph demonstrate transparency and reflect very little sound.

In short, whether it's about transparency or transparency plus a touch of absorbency, these Camira fabrics will allow acoustic boards to do their job.

# How do fabrics

## **Transparency - made to be barely there**

A fabric that exhibits good transparency will produce very little sound reflection or absorption and so will allow sound to pass through without interference. Highly transparent fabrics are used for loudspeaker coverings.

One of the main factors determining transparency is the weave structure of the fabric. An open weave fabric such as Carlow shows a high level of acoustic transparency.

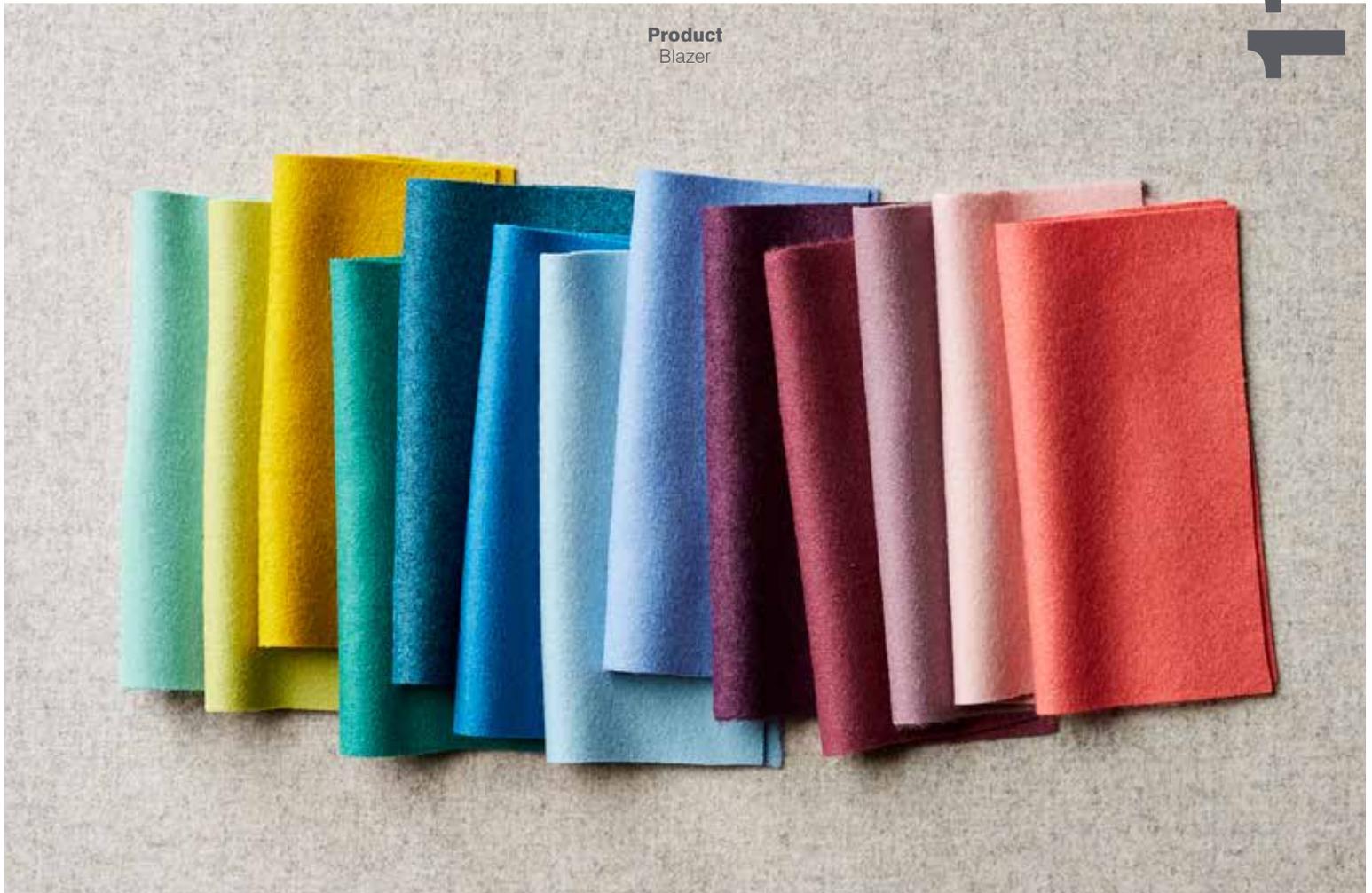


**Products**  
Era and Carlow

# our work?

## **Absorbency - made to soak it up**

Fabrics have the potential to absorb an amount of sound. In general terms, the thicker and more fibrous the fabric the higher the level of absorption; Blazer, for example, would absorb more sound than Carlow. For good acoustic absorption, all of our fabrics need backing with sound absorbing board or foam.



Product  
Blazer

# Acoustic fabric specification guide

All the products in the below table are non-reflective and can be specified as acoustically transparent for use in conjunction with an acoustic board. The most transparent are described as having **very high** transparency. Our wool fabrics (Blazer, Blazer Lite and Synergy 66) have **high** transparency but also feature some absorbency (**medium**). Importantly though, these fabrics should not be described as acoustically absorbent in their own right.

Camira Product	Non reflective	Acoustic Transparency	Acoustic Absorbency	Acoustic testing ISO 10534 Part 2
Racer	✓	Very High	Low	✓
Carlow	✓	Very High	Low	✓
Sonus	✓	Very High	Low	✓
Lucia	✓	Very High	Low	✓
L2	✓	Very High	Low	✓
Era 66	✓	High	Low	✓
Blazer	✓	High	Medium	✓
Blazer Lite	✓	High	Medium	✓
Synergy 66	✓	High	Medium	✓

Note: Results accurate at time of print. For most recent results visit [www.camirafabrics.com](http://www.camirafabrics.com).

**Baudot** | Allermuir



**Acoustic panels** | Soundhush Ltd



**LinkedIn** | Panel Tex wall panels by DFB



Acoustic Fabrics. Made by Camira.

Flammability test ASTM E 84 Adhered	Flammability test ASTM E 84 Un-adhered
Class 2 or B	Class 1 or A
Class 1 or A	Class 1 or A
Class 2 or B	Class 2 or B
Class 1 or A	Class 1 or A
Class 1 or A	Class 1 or A
Class 1 or A	Class 1 or A
Class 1 or A	Class 1 or A
Class 1 or A	Class 1 or A
Class 2 or B	Class 2 or B

**Era** | Carnival Pyramid



**Volunteers of America** | Swell Panels manufactured and installed by DFB



**Product**  
Synergy 66



**Product**  
Lucia



Product  
Lucia

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Product  
Lucia

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