



Sound acoustics in the workplace

From the floor up

Interface®



The business benefits of a happy, healthy workforce

Every year millions of working days are lost due to work-related illness, resulting in lost productivity and huge costs for employers.

The physical work environment plays a major role in absenteeism.

Research has shown that employees rank it as one of the top three factors contributing to job satisfaction, as well as to their decisions about accepting or leaving a job.

At Interface we know that our physical surroundings have an impact on how we feel. And we understand the importance of having a great place to work.

Designers and architects play a crucial role in providing inspirational environments that facilitate flexible working, for the benefit of both employers and employees.



Excessive noise levels are among the top 5 workplace complaints. Open plan, multifunctional workspaces are emerging to optimise the use of the space, facilitate collaboration and promote creativity.

Modular carpet and the holistic interior

Generally employees will feel much more inspired if they are able to move around. However, open plan workspaces pose acoustic challenges, that can have dramatic effects.

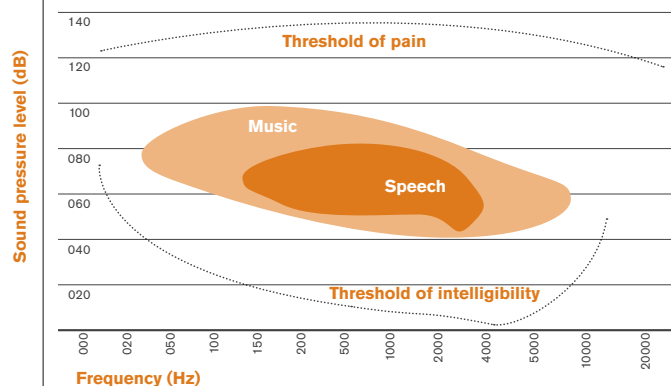
Interface modular carpet was developed for the changing workplace. It effectively absorbs sound and reduces impact noise at the source and is also ideal for zoning areas for a range of activities, from collaboration and concentration to relaxation and recreation.

What kind of acoustic environment do **you** want to create?

The acoustic requirements of an interior will vary from project to project and building to building.

Improving the intelligibility of speech in a class room or a meeting space requires different solutions than establishing a feeling of privacy in an open office space.

The size and shape of a room play an important role. So does the choice of ceiling, acoustic panels and flooring materials, as they cover a large surface area. Acoustic quality is a result of all the features in a room and not just the flooring.



If you can hear someone talking while you're reading or writing, your productivity dips by up to 66%

Understanding which sounds humans can hear – and which of these sounds they want to hear – enables designers to select the best materials to reduce unwanted noise.



Impact sound

Chairs being moved or footsteps on a floor are examples of impact sound.

A good acoustic environment is always the result of many factors, but to effectively control noise from footsteps and other impacts, no flooring material is more effective than carpet.

Impact sound transmission, measured in decibels, tells you how much sound is insulated from an adjacent space.

Our products reduce impact noise by

14 - 33 dB

compared for hard flooring which only reduces

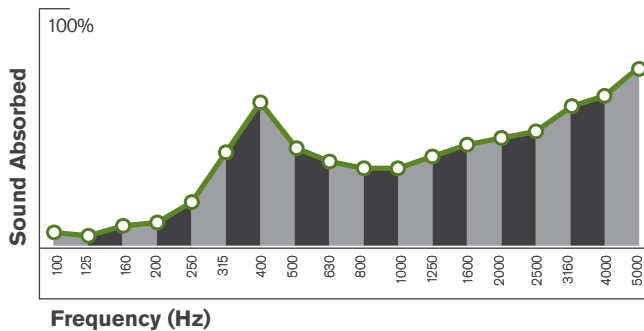
1 - 6 dB







Soft surfaces absorb more sound than hard surfaces, but acoustic quality is a result of all the features in room and not just the flooring.



These values are called the alpha s.

α_s

Sound absorption

Sound absorption is measured across 18 different frequencies between 100 Hz – 5000 Hz. For example, here are the results for our Equilibrium product on SONE® acoustic backing.

α_w

They are then averaged, rounded and weighted into a single value called the alpha w.



To address the specific type of sound you want absorbed, use the alpha s values for the relevant frequencies. Humans are less sensitive to low frequencies, making the absorption of mid to high frequency sounds more important.





Design choice

For the majority of projects, acoustic and ergonomic comfort can be achieved with the specification of standard Interface carpet tiles.

With a variety of textures and over 1000 colourways across 80 ranges, your scheme doesn't have to be compromised when you need to control the acoustic properties of the interior.

Our enhanced acoustic backing options, SONE® and Interlay, can be used across the entire workspace or applied to smaller zoned areas that have more complex needs.





SONE

SONE is a new integrated backing available for more than 40 of Interface's modular carpet designs. Designed with the user in mind, SONE enhances acoustics and softness underfoot.

SONE contains a high amount of recycled content, helping you reach your sustainability goals.

Impact sound reduction up to 33 dB

Sound absorption from α_w 0.30 – 0.40 depending on product

Increased softness underfoot

Easy to install with minimum disruption

Economical – especially over large areas

Can be specified with an extensive range of Interface carpet tiles

Recycled content – a large part of SONE consists of recycled materials



Interlay

Interlay is a resilient, loose-lay underfloor system of 50 x 50 cm tiles that can be used to enhance acoustics and comfort, just where it's needed.

It is easy to install and has long-lasting benefits. Interlay significantly improves acoustic performance in any room by absorbing sound and dampening impact noise – the ideal way to combat poor acoustics.

When your carpet needs replacing, the Interlay will still be going strong. You can re-use it, keeping all the benefits for the future.

Impact sound reduction up to 32 dB

Sound absorption up to α_w 0.30 depending on product

Enhanced softness underfoot and thermal comfort

Easy to install

Can be installed with our glue free TacTiles® system

Flexible – allows easy change of carpet tiles

No minimum quantity and short lead times

Economical and flexible – especially for smaller areas

Compatible with the majority of Interface products









Image Credits

Page 1	ANZ centre, Melbourne
Page 2	ANZ centre, Melbourne
Page 4	Pacific House, UK. Lusted Green in collaboration with GVA.
Page 7	Yandex Saint Petersburg Office II. Photographer: Peter Zaytsev / za bor architects
Page 9	HoK, London
Page 10	Yandex Photographer: Peter Zaytsev / za bor architects
Page 12	Hogeschool van Amsterdam. Photographer: Monique Kooijmans
Page 17	Skype
Page 18	The Co-operative, UK

