



**ANKER**  
TEPPICHBODEN

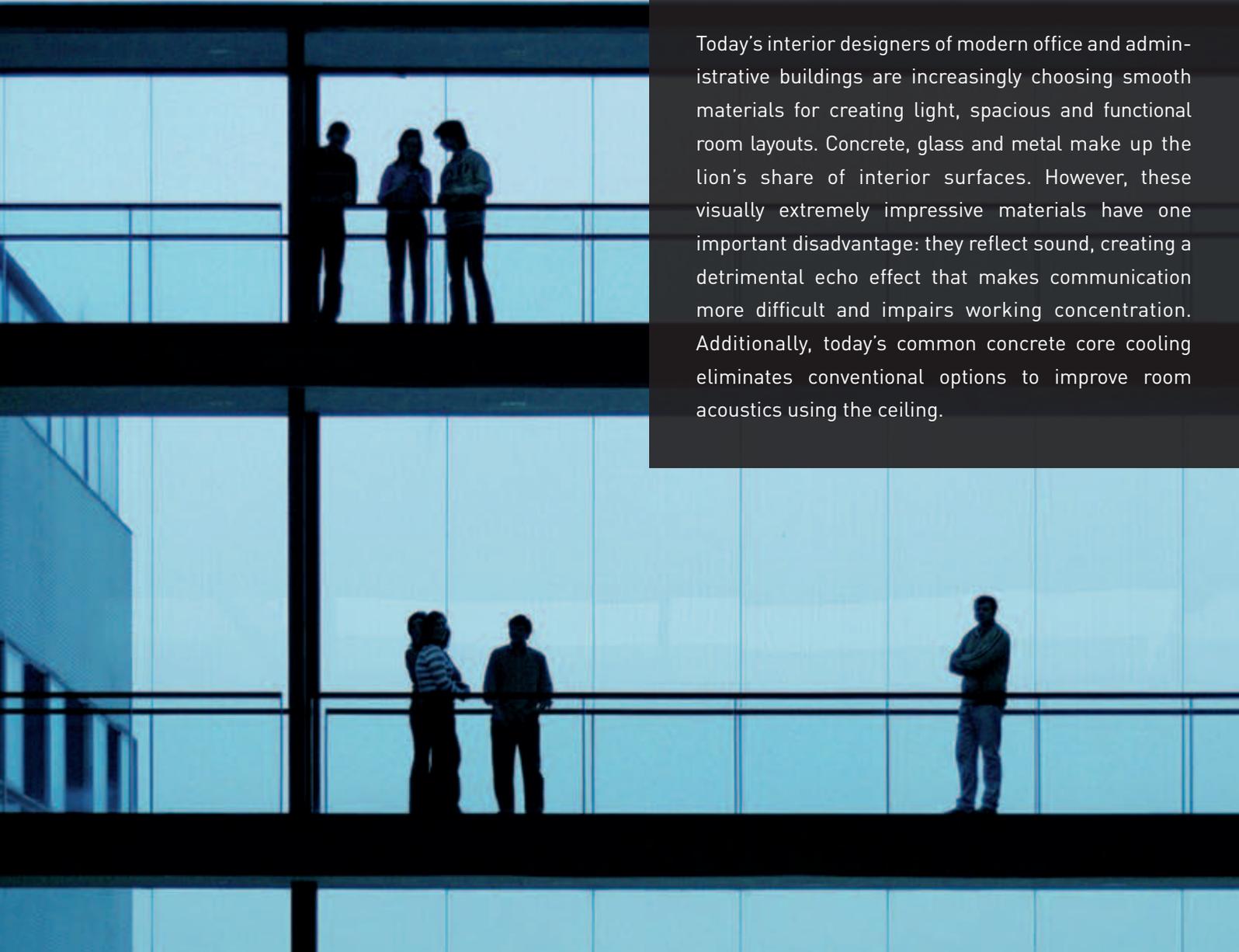
**SONICWAVE®**

**FOR OPTIMUM ROOM ACOUSTICS**

# ARCHITECTURE AND ACOUSTICS

## PREVENTING NOISE IN MODERN WORKING ENVIRONMENTS

Today's interior designers of modern office and administrative buildings are increasingly choosing smooth materials for creating light, spacious and functional room layouts. Concrete, glass and metal make up the lion's share of interior surfaces. However, these visually extremely impressive materials have one important disadvantage: they reflect sound, creating a detrimental echo effect that makes communication more difficult and impairs working concentration. Additionally, today's common concrete core cooling eliminates conventional options to improve room acoustics using the ceiling.





# SUN\_E | TUFTED

ONE OF OVER 15 HIGH-QUALITY ANKER CARPETING WITH SONICWAVE®

## IMPACT NOISE

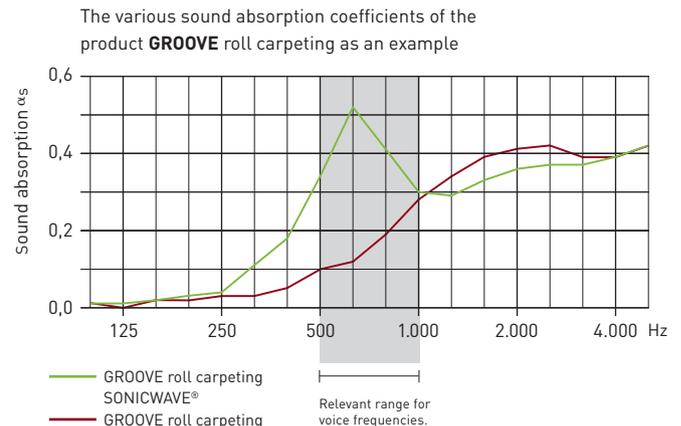
### SOUND BEHAVIORS BETWEEN ADJACENT ROOMS

Impact noise is a special type of structure-borne sound. This is generally caused by mechanical action on solid bodies. Impact noise is produced by walking on floors and stairs. Its intensity is measured in decibels (dB). Where acoustic insulation is poor, the noises are clearly and disruptively perceptible in the rooms below. Impact noise insulation specifies by how many dB a floor covering improves the insulation values (compared to a standard concrete floor). ANKER Standard carpets easily achieve insulation values of 22 - 31 dB, while hard coverings without auxiliary materials only attenuate sound by 4 - 10 dB. And using SonicWave improves the impact noise performance of ANKER carpeting by a further substantial amount!

## SOUND ABSORPTION

### THE ACOUSTIC CONDITIONS WITHIN THE ROOM

Airborne sound waves are measured in frequencies, which are specified in the unit "hertz". 1 hertz (Hz) = 1 oscillation per second. The greater the hertz value, the higher the pitch. For voice communication in office buildings, a frequency range of 500 to 1000 Hz is considered relevant. Another important concept is the "weighted sound absorption coefficient" ( $\alpha_w$ ). This is determined by converting the measured sound absorption coefficient ( $\alpha_s$ ) into the practical sound absorption coefficient ( $\alpha_p$ ) and depicting it as a curve on a graph. The weighed sound absorption coefficient ( $\alpha_w$ ) is determined according to a precisely defined procedure and corresponds to the value of a shifted reference curve at 500 Hz.





# YUKON | WOVEN

ONE OF OVER 15 HIGH-QUALITY ANKER CARPETING WITH SONICWAVE®

# CARPETING WITH SONICWAVE® BACKING

## THE OPTIMUM SOLUTION FOR BUILDINGS WITH HIGH ACOUSTIC REQUIREMENTS

Unlike (sonically) hard surfaces, carpeting in itself is an excellent, porous sound attenuator with significant absorption values, and just by itself can already significantly improve the acoustic situation. In order to offer even more effective sound absorption, ANKER has improved the already superior sound properties of its carpeting even further using a special acoustic fleece. Carpeting provided with SONICWAVE® backing achieves  $\alpha_w$ -values up to 100 % better than standard products. Additionally, in the speech-relevant range of 500 to 1000 Hz, these products absorb four to five times the sound of normal carpets.

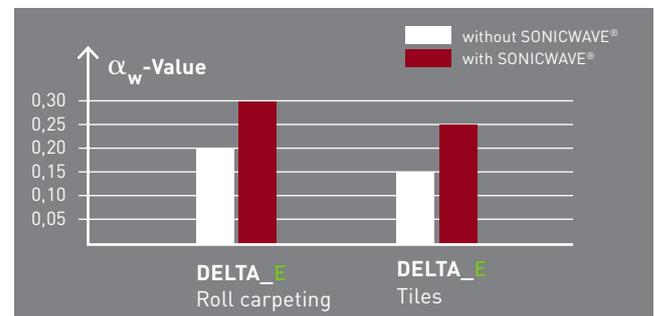


Carpeting with SONICWAVE® backing



Measurement log for the product DELTA\_E with SONICWAVE® backing

The sound absorption coefficient of the product **DELTA\_E** from ANKER is greatly improved when equipped with SONICWAVE® backing.



Test result from testing agency SWA Schall- und Wärmemeßstelle Aachen GmbH

# A QUESTION OF WORKMANSHIP

## THE DESIGNS, EXPLAINED USING TUFTING GRADES

**Pile yarn** | High-quality brand-name yarns, e.g. Econyl brand solution dyed yarn made of 100 % recycled polyamide PA 6, which hides dirt on account of its trilobal fiber cross-section

**Tuft backing** | High-quality fleece made of 100 % recycled PET

**Primer** | Special latex compound for maximum nub bonding

**Glue coat** | For extremely tough, elastic gluing of the backing structure

**MPC heavy layer** | Heavy tile layer for optimum dimensional stability

**Acoustic fleece** | Dense compact fleece made of 90 % recycled PET, acoustically particularly effective

**Bitumen** | Heavy tile layer for optimum dimensional stability

**Integrated glass layer** | Additional mechanical sandwich-type reinforcement

**Pile yarn** ——— **ROLL CARPETING TUFTING WITH TEXTILE BACKING**

**Tuft backing**  
Primer  
Glue coat  
**Textil backing**

**Pile yarn** ——— **ROLL CARPETING TUFTING WITH SONICWAVE®**

**Tuft backing**  
Primer  
Glue coat  
**Acoustic fleece**

**Pile yarn** ——— **SYSTEM TILE TUFTING WITH SONICWAVE®**

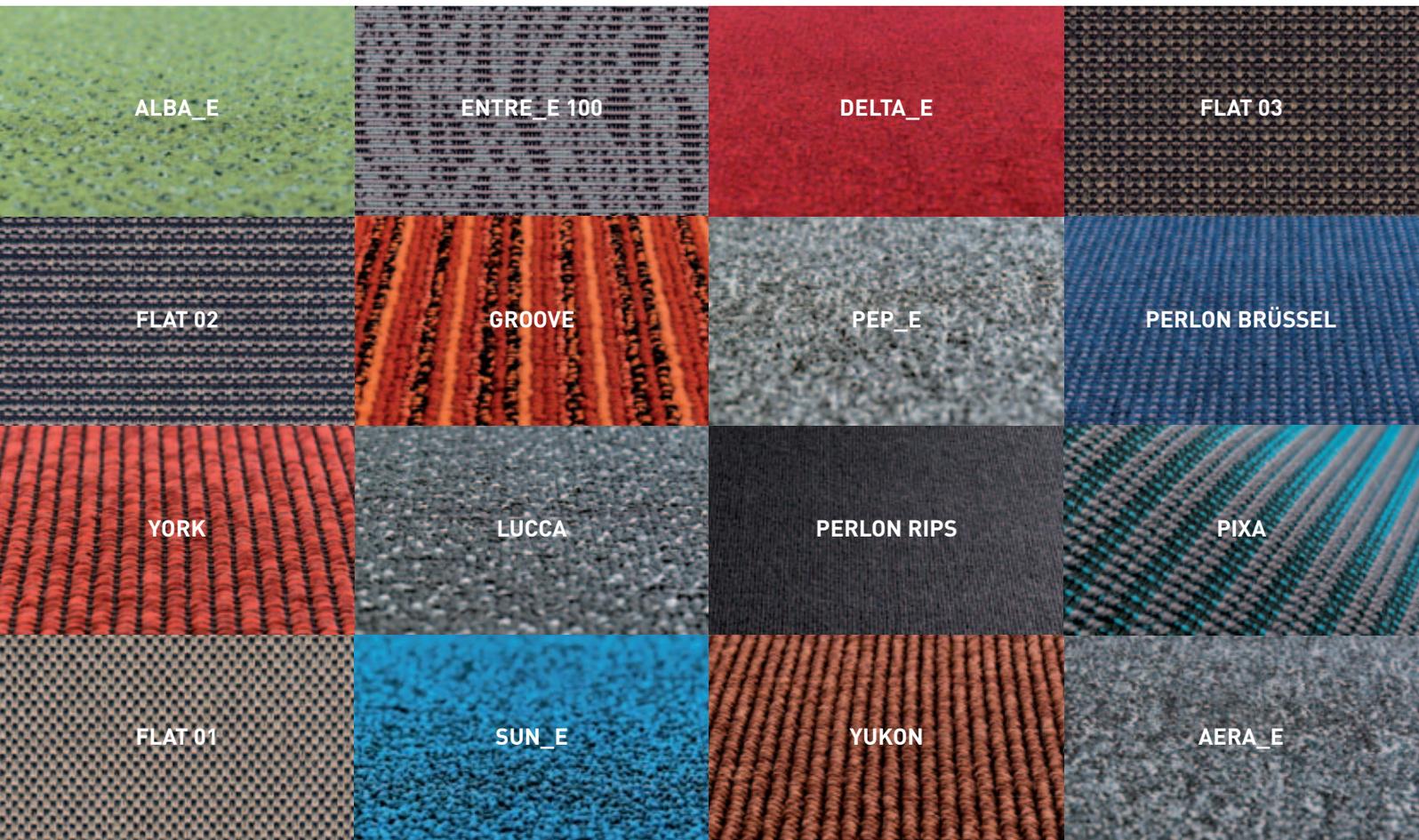
**Tuft backing**  
Primer  
**Bitumen**  
**Glas fibre**  
**Bitumen**  
**Covering fleece**

**Pile yarn** ——— **ELEMENT TILE TUFTING WITH SONICWAVE®**

**Tuft backing**  
Primer  
**MPC\_heavy layer**  
Glue coat  
**Acoustic fleece**

# FUNCTION. DESIGN. COLOR.

SONICWAVE® IS AVAILABLE FOR MANY PRODUCTS  
IN A WIDE RANGE OF COLORS



## ANKER TEPPICHBODEN

Gebr. Schoeller GmbH + Co. KG

Postfach 10 19 26 | D - 52319 Düren

Telefon +49 (0) 24 21/804-0 | Telefax +49 (0) 2421/804-200

anker@anker-dueren.de | www.anker.eu

### Export:

Phone +49 (0) 24 21/ 804 216

export@anker-dueren.de

