

Acoustics reimagined: DUO acoustic tiles by OBJECT CARPET for the workplaces of tomorrow



*DUO acoustic tiles from **OBJECT CARPET** are best known for their recyclability – whilst also setting new benchmarks in acoustics: even in their standard configuration, they deliver significantly higher acoustic performance than industry-standard solutions. This is made possible by their innovative material composition, which achieves 28–34 dB impact sound reduction and an α_w value of 0.30–0.35. As a result, they make a particularly valuable contribution to wellbeing and building certification.*

Micro-noise as a hidden stress factor

In modern workplaces, open-plan office layouts are seen as synonymous with creativity, agility and collaboration. Yet it is precisely where spatial boundaries disappear that an often underestimated problem arises: noise. Excessive sound levels have long ranked among the greatest stress factors in office environments. Recent research has highlighted the influence of so-called micro-disruptions in particular: ringing telephones, fragments of

conversations that can be clearly understood or footsteps on hard floors. The irregular yet recurring occurrence of these individual noise events fragments the working experience, interrupts thought processes and increases mental fatigue. The consequences are rising error rates, declining productivity and increased stress levels, which can also have a lasting negative impact on mental wellbeing.

DUO: an innovative acoustic solution

A carefully designed acoustic concept is therefore more important than ever in modern workplace architecture. Achieving it requires a combination of intelligent planning and the right choice of materials. This is precisely where DUO acoustic tiles by **OBJECT CARPET** come into play. They have been specifically developed to reduce acoustic challenges directly at their source, without the need for additional measures or complex retrofitting. The key lies in their innovative construction: an integrated acoustic membrane, combined with the double-layer construction, provides targeted sound insulation, whilst the 600g acoustic felt backing ensures both stability and additional sound absorption. The result is acoustic performance that clearly exceeds market standards. Conventional textile floor coverings often achieve impact sound reductions of between 15 and 25 dB and sound absorption values of around α_w 0.15–0.25. DUO acoustic tiles surpass these figures considerably: with impact sound reduction of 28–34 dB and values of α_w 0.30–0.35, they offer significantly enhanced acoustic performance even in their standard version. This makes a tangible contribution to creating quieter, more pleasant and more balanced interior environments.

The carpet's flexible, open-structured backing delivers excellent sound absorption



TFI-measured values for Welltex Circular Acoustic:
Sound absorption coefficient according to ISO 11654:
 $\alpha_w = 0,3$
Impact sound reduction according to EN ISO 10140:
 $\Delta L_w = 28-34 \text{ dB}$ (a reduction of 10 dB is generally considered equivalent to halving the perceived noise level)

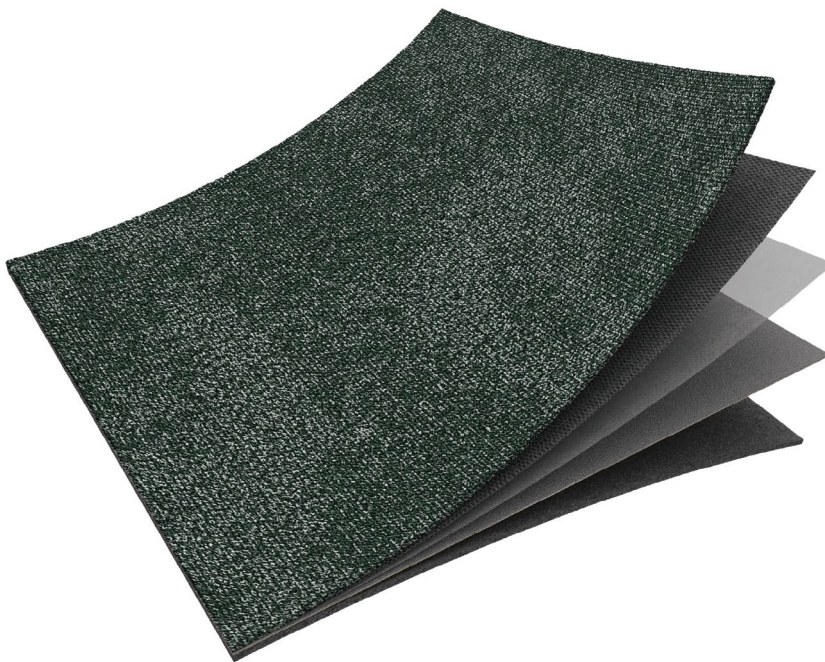
A valuable contribution to building certification


Beyond their immediate impact on human wellbeing, the improved acoustics provided by DUO also make an important contribution to building certification. Whether under DGNB, LEED or WELL standards, high acoustic performance has a positive effect on the assessment and provides comprehensive support for sustainable building and interior design concepts. This comes with a range of additional benefits: **OBJECT CARPET** products featuring DUO technology can, for example, be installed particularly efficiently and

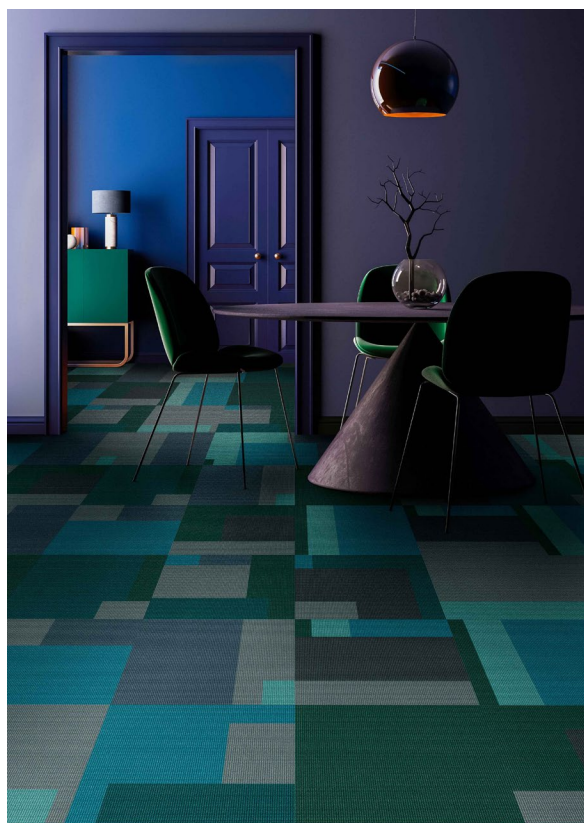
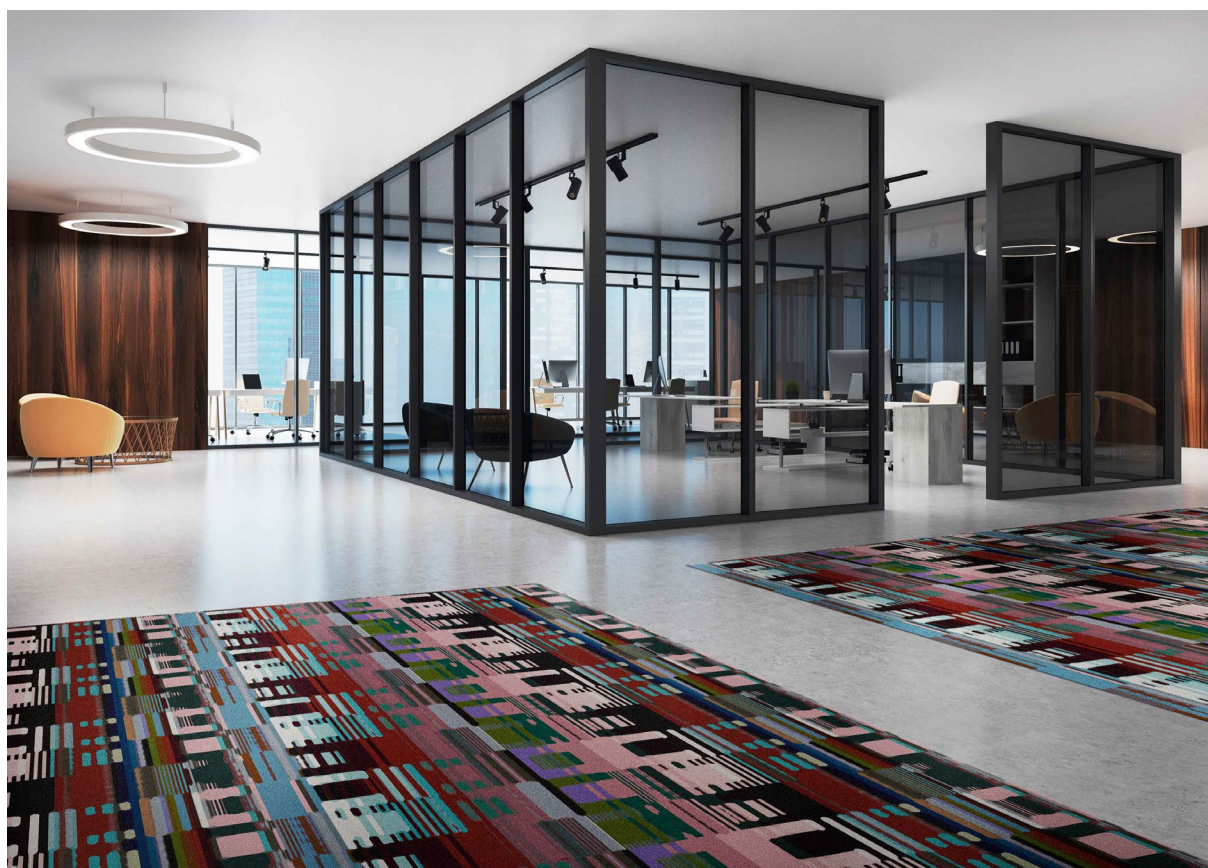
sustainably. They are simply secured rather than permanently glued down, eliminating the need for additional specialist underlays. Existing floors can often remain in place, making the system ideal for fast-track refurbishments and modernisation projects. The work is carried out largely without generating dust or dirt, meaning that adjacent areas can often remain in use.

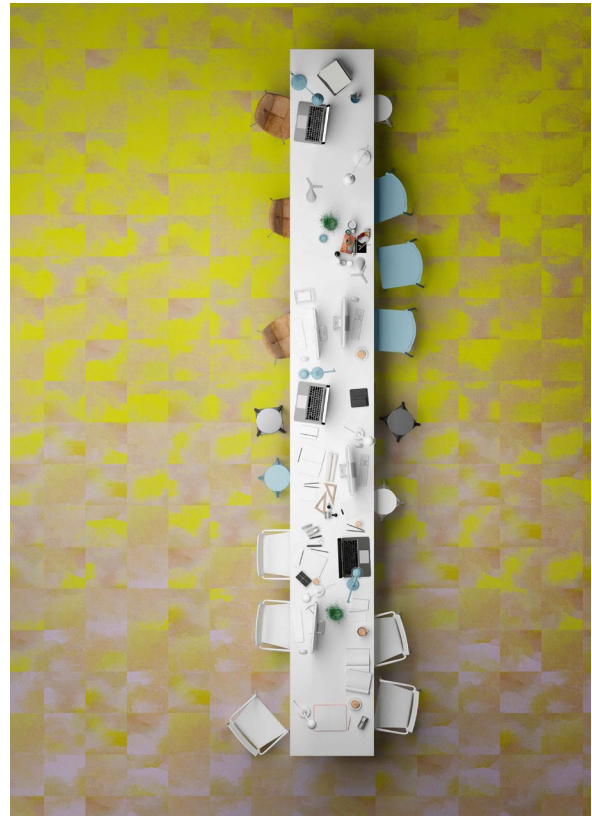
Durable and sustainable

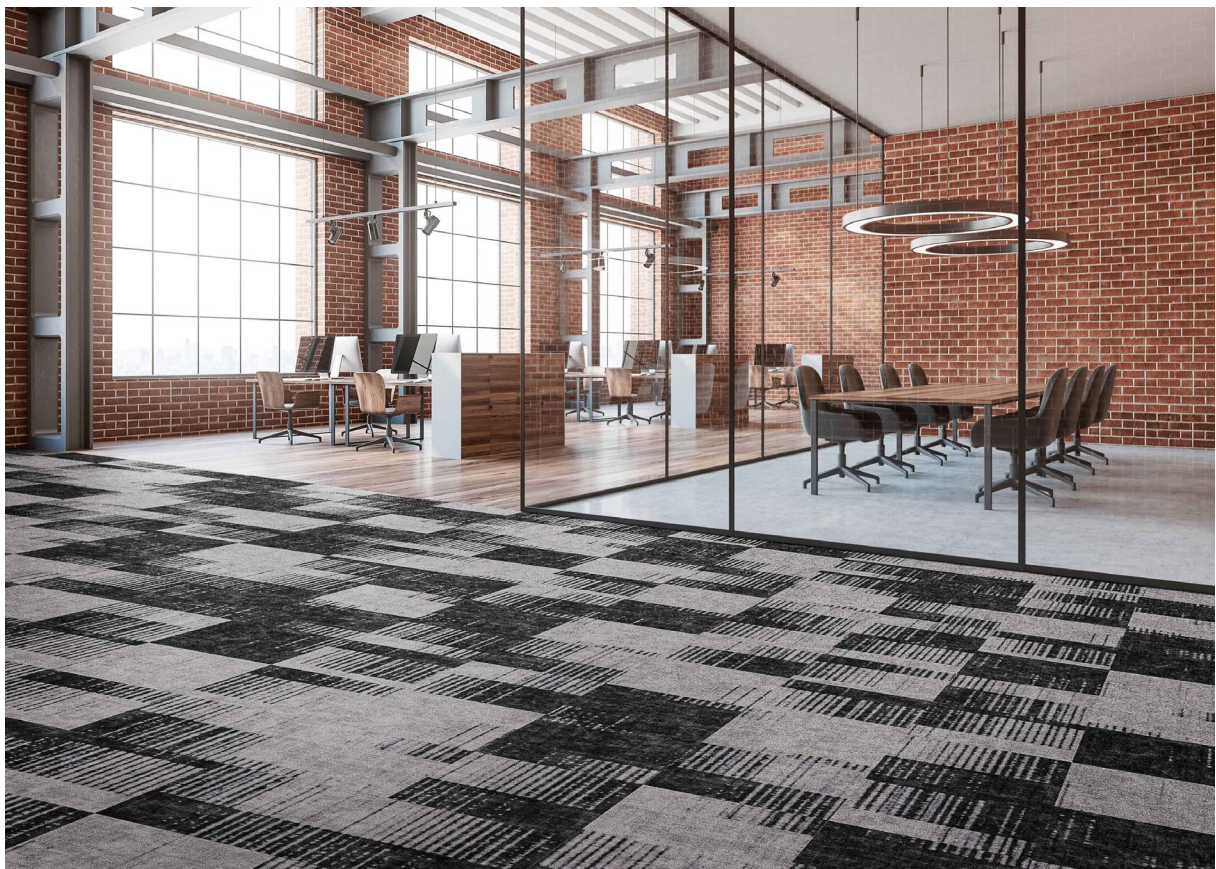
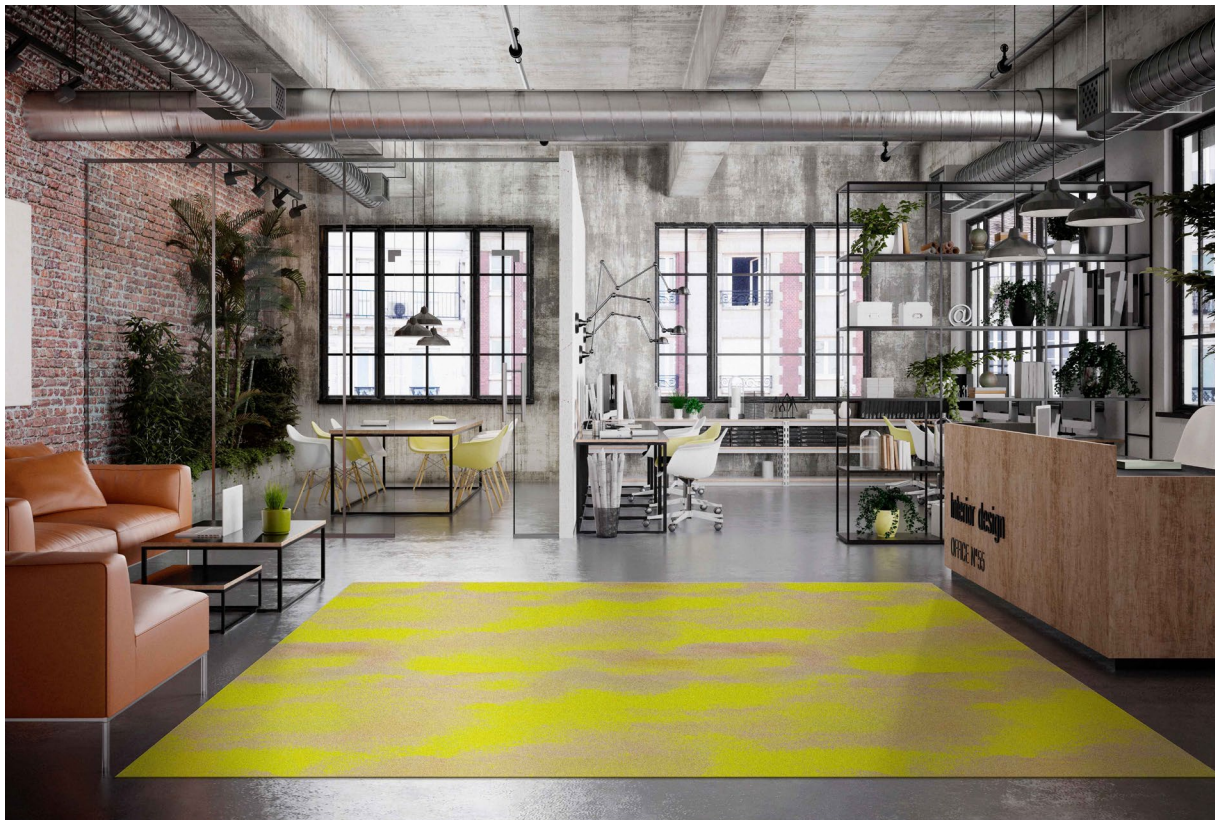
Robust, resilient and long-lasting, DUO solutions maintain their structural integrity throughout their entire service life, ensuring consistently high acoustic performance at all times. Once they finally reach the end of their lifecycle, the flooring can be easily replaced and recycled, making it an exceptionally sustainable solution. "Particularly in times of hybrid working models, it has become clear just how important it is to create spaces that facilitate both concentration and communication," says Daniel Butz, Managing Director of **OBJECT CARPET**. "Achieving effective acoustics therefore remains a key challenge. Our DUO products are designed to skilfully combine functionality, acoustic comfort and sustainability. The result is working environments that meet the demands of modern offices just as effectively as they address the needs of people and the environment."



-  **DUO-carpet top layer**
made from 100% polyamide: recycled Econyl® yarn
-  **Basic fabric**
polyester-based substrate
-  **Fibre and filament bonding**
- by thermobonding (melting) instead of precoats
- without any harmful fillers and binders
-  **NIAGA Hotmelt made of 100 % polyester**
(Öko-Tex 100 certified – no harmful substances)
-  **WELLTEX Circular double layer with acoustic membrane**
Recycled polyester







Photos: OBJECT CARPET, Images of FORUM FOR GREAT IDEAS

About **OBJECT CARPET**

Since 1972, **OBJECT CARPET** has stood for quality, design and innovation in the commercial and home sectors. A sense of aesthetics and color, in combination with advanced production techniques, results in elegant and unusual designs in the form of broadloom, carpet tiles and custom-cut carpets (RUGX). With over 1,000 styles and colors as well as individually-customized products, the **OBJECT CARPET** collection offers a unique diversity for modern interior design, manufactured from high-quality raw materials. All **OBJECT CARPET** styles are also free from harmful emissions and are bitumen-free, latex-free, and PVC-free. They bear the German Environment Agency's Blue Angel ecolabel. **OBJECT CARPET** products are also recommended by the TÜV (German Technical Inspection Association) for allergy sufferers and are proven to reduce dust content and particulate matter. Partners and customers around the world, such as Porsche, Daimler, Google and Adidas appreciate this, as do initiatives like "Healthy Seas".

The use of recycled materials and the systematic conversion of the product range to recyclable products have now become standard practice for **OBJECT CARPET**. The company set a milestone in 2022 with NEOO, the first circular carpet for the commercial sector. Eight years of development work together with NIAGA® produced a mono-material carpet that raises the bar for circularity. Building on this pioneering achievement, **OBJECT CARPET** has now gone one step further: DUO technology introduces the next generation of recyclable carpets. It consists of just two easily separable layers and combines maximal design versatility with minimal use of materials. The vision: step by step, the range is being converted to recyclable products – much of it already by the end of 2026.

Numerous design and business awards, such as the renowned Good Design and Red Dot Awards, attest to **OBJECT CARPET**'s outstanding design competence and corporate achievements. For example, **OBJECT CARPET** was chosen as one of the "top 50 German luxury brands" by Ernst & Young and voted one of the "brands of the century" by Langenscheidt. **OBJECT CARPET** has also been an official partner of the Berlinale for many years, where its carpets not only ensure that the stars make a glamorous appearance but also help reduce the environmental footprint of Germany's largest film festival.

With innovative production techniques and sustainable manufacturing methods, **OBJECT CARPET** is a pioneering enterprise that enables design visions to become reality. Experience **OBJECT CARPET**'s world of color and materials in any one of the company's showrooms in Germany, Austria, and Switzerland.

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