

**LUX**CUSHION

**TUNTEX™**

**More  
Than  
Comfort**

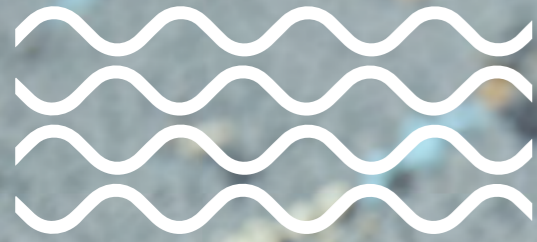
LUXCUSHION™



**Aims to Create a Delightful Living Environment with Ensured Comfort and Wellbeing.**

For over 50 years, creating a more sustainable and healthier living environment has been Tuntex's ultimate goal. The innovation of LuxCushion™ takes one step further to achieve that goal. It's a revolutionary technology that is completely different from typical backing systems, a cutting-edge invention to redefine comfort and softness of carpet.

# More Than Comfort



# Revolutionary New Backing System



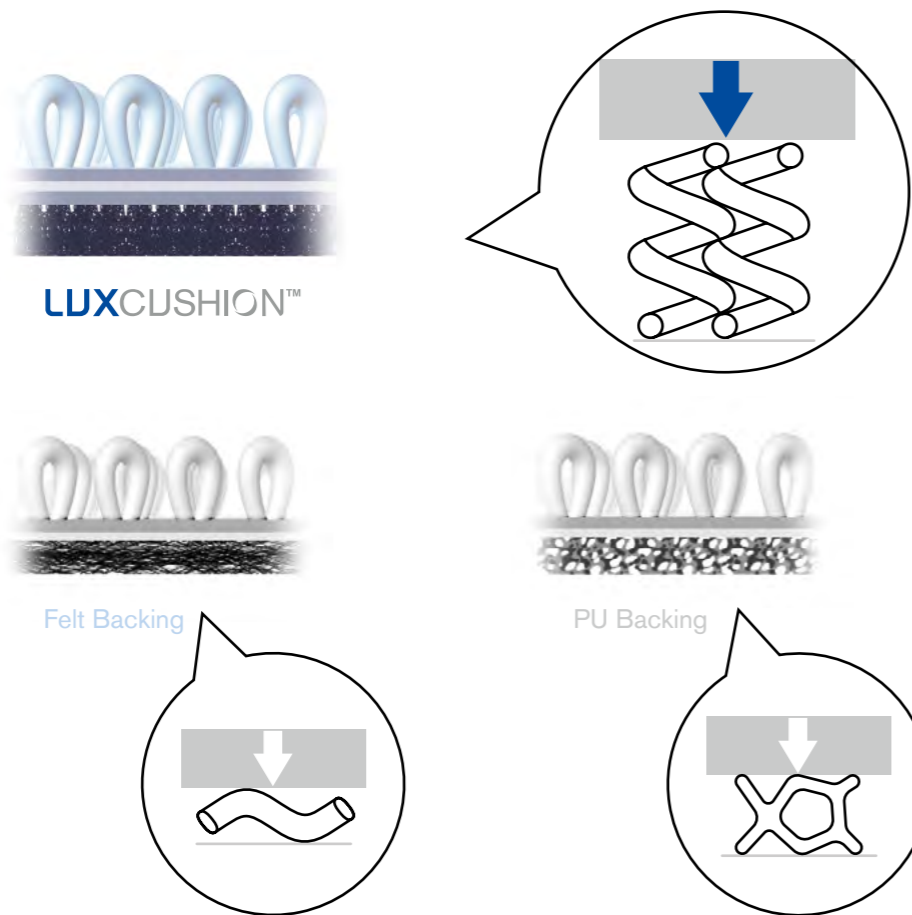
- 01** nexlon™ – premium solution dyed nylon
- 02** Reinforced fiber glass
- 03** LuxCushion™ – repurposed high resilience nylon

**Patented Technology  
Unique Sandwich Design**

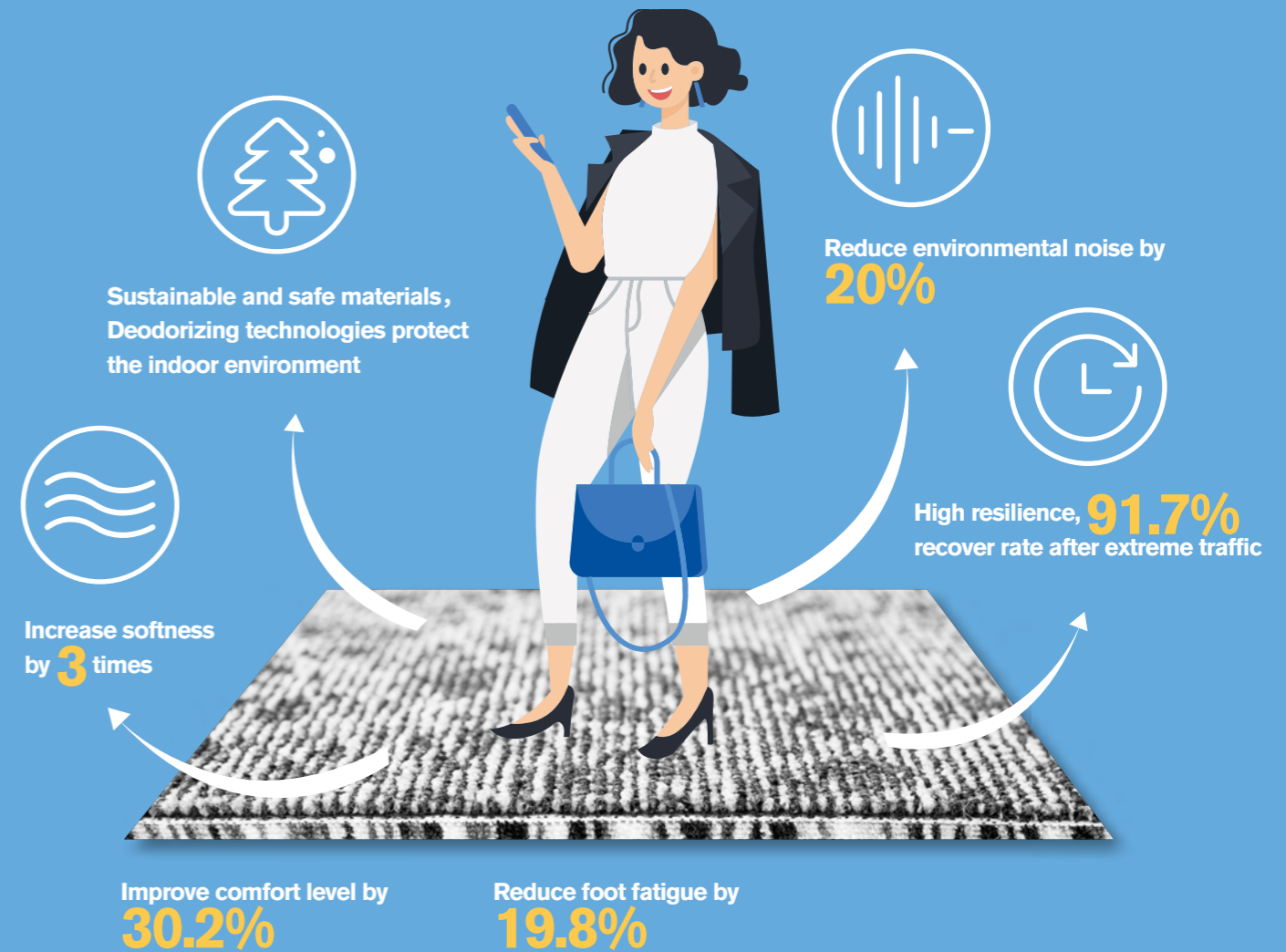
Chinese Patent No.: ZL 2020 1 0199802.5  
United States Patent No.: US 11,668,046B2

## Creative Backing Structure

Different from typical backing systems, **LuxCushion™** repurposes high resilience nylon that is a byproduct from yarn wasted during carpet manufacturing process. Compared to typical felt or foam backing, LuxCushion™ shows a superior resilience performance thanks to its unique 3D structure. Tufted like “springs”, LuxCushion™ provides better underfoot comfort for indoor environment.



# DESIGN FOR COMFORT



## Design For Comfort

Comfort is one of the most important aspects of architectural design, and also the reason to introduce LuxCushion™. The development of LuxCushion™ is a revolutionary upgrade to carpet backing systems, taking performance and comfort experience to the next level.



## Improve Underfoot Comfort



**LuxCushion™ repurposes high resilience nylon as the major material for backing systems**

The yarns are arranged spirally and vertically, showing outstanding strengths of support and resilience. It brings unprecedented underfoot experience in terms of improving softness and relieving foot fatigue. Also, more security is provided to reduce the risk of falls and injury. It can be applied to education spaces or senior care facilities.

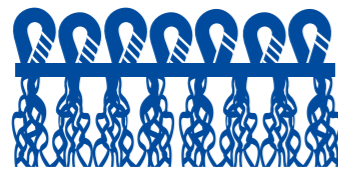


## More Softness, Better Comfort



Tuntex Lab has performed load testing on different backings. Results show a positive correlation between the thickness of backings and softness. **The backing of LuxCushion™ is softer than felt backing and the softness increased by three times.**

LUXCUSHION™



before



after

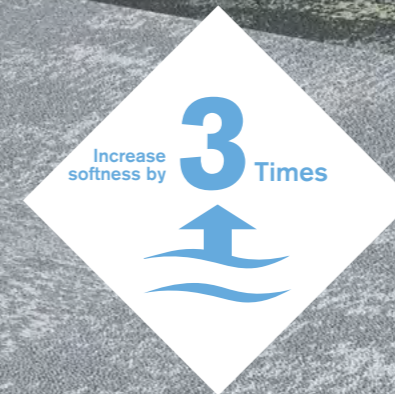
Felt Backing



before



after



\*The research data in the article comes from Tuntex Lab. All rights reserved.

## Significantly Reduces Foot Fatigue



With greatly elevated softness, LuxCushion™ gives not only sound underfoot comfort but also better foot support. Both can effectively work with **relieving the soreness and fatigue of muscles.**

Experiments prove that compared to typical backing systems, carpets with LuxCushion™ improved comfort level by about 30.2% and reduced foot fatigue by about 19.8%.



The education environment often has higher requirements on flooring materials. In particular, academic staff are required to stand for prolonged periods. It has largely challenged the softness and comfort of flooring materials.

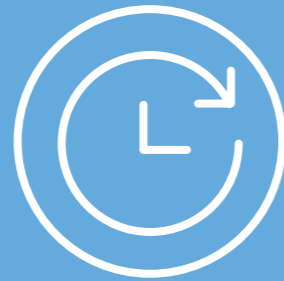
Tuntex cooperated with a primary school in Chengxiang Town, Taicang City, and conducted two-week field research to test the functionality of LuxCushion™. Different control groups were set and carpets with different backings were installed in the podium area. Staff members were invited to give feedback after class. Results showed that LuxCushion™ performed better in terms of softness, comfort, and relief of muscle aches and pains.

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# Superior Resilience to Ensure Long-lasting Comfort



**A long-lasting comfort rather than  
a one-time disposal**

Tuntex believes that improving the space comfort doesn't mean temporary feels, but a state of long-lasting experience. LuxCushion™ is proven to have solid characteristics of resilience, flexibility, and durability. It remains soft after long-term usage, lengthening the comfortable experience.

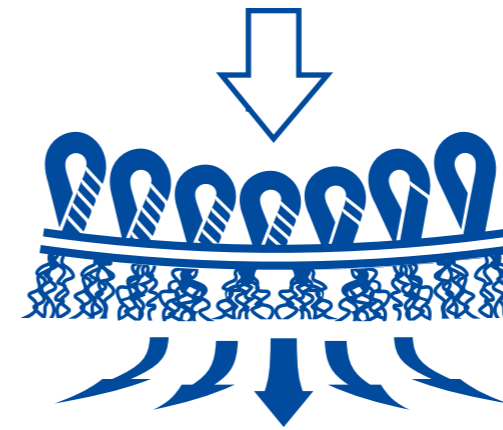
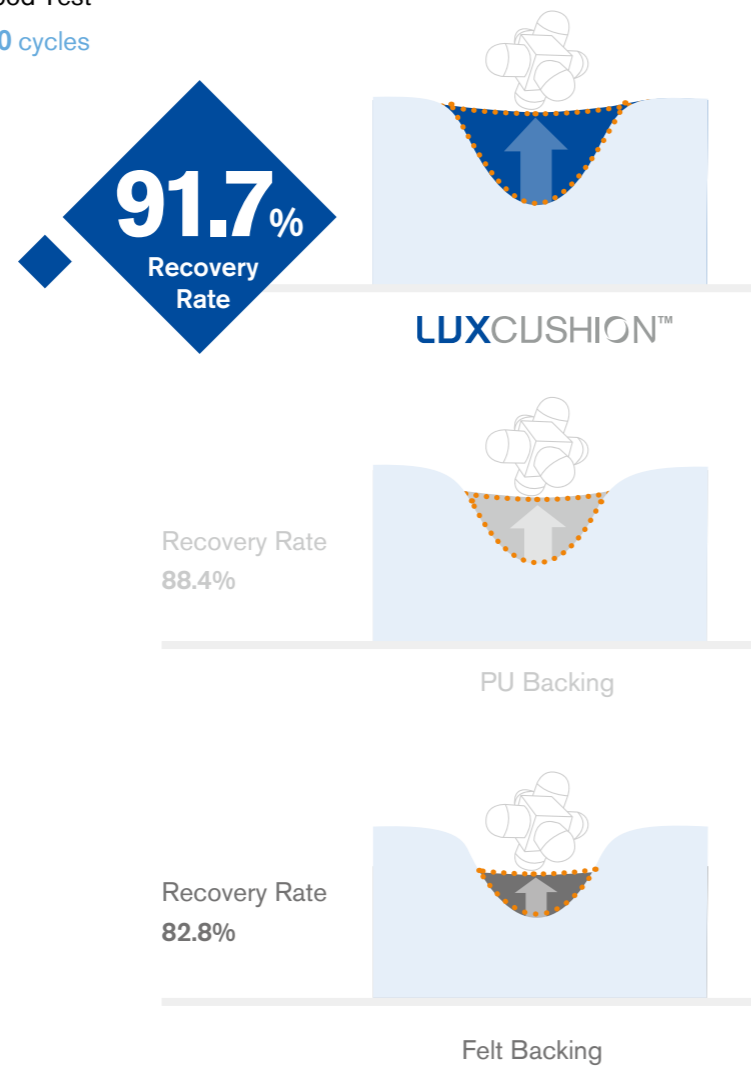


## Better Resilience Than Typical Backing Systems



Tuntex Lab shows evidence that the recovery rate of LuxCushion™ outclasses the performance of felt backing and PU backing after industry accepted Hexapod testing.

Hexapod Test  
24000 cycles



Yarn of LuxCushion™ adopts the shape of spring. With a superior resilience performance, the carpet can recover quickly after usage.



Fiber glass is added to ensure excellent dimensional stability and durability

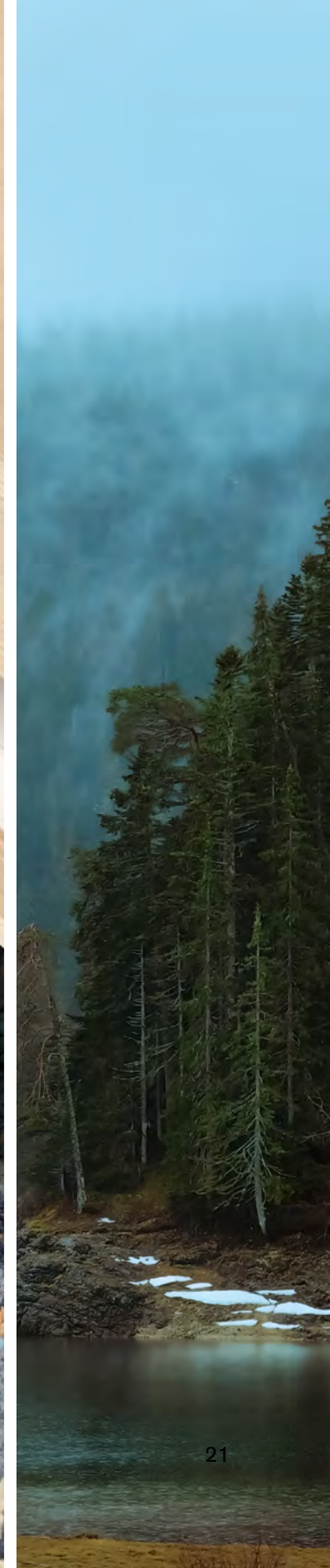
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## Better Acoustic Comfort



**A comfortable space delivers joy and balance  
between physical and mental conditions**

Noise plays a vital role in affecting indoor comfort, and how to reduce noise through interior design and architecture has always been the vision of Tuntex. The innovative sandwich design of LuxCushion™ utilizes two layers of nylon fiber, achieving better noise reduction effect and acoustic comfort.



## Impact Sound Insulation $\Delta L_w$



Impact sound insulation refers to the ability to prevent the transmission of impact noise, such as footsteps, dragging furniture and falling objects between floors or rooms.

**LuxCushion™** tests a reduction of transmitted impact noise by **37dB** according to ISO 10140, which is **5 times** better than LVT, and an **increase of 50%** compared to typical backing.

**LUXCUSHION™** Carpet with LuxCushion™



Carpet with typical backing



LVT



Hard Flooring (Wood, Concrete, etc)



Note: Impact sound insulation of other flooring coverings is a reference value and will vary depending on products.



- The data is the laboratory test result, and it is subject to different according to the change of experimental environment
- Impact sound insulation refers to  $\Delta L_w$  and measures in decibels (dB)
- The data is the laboratory test result, and it is subject to different according to the change of experimental environment



## Sound Absorption $\alpha_w$



Sound absorption indicates the capacity to absorb sound energy in the air. Absorption can lessen other unpleasant background noise within the room, for example echo. According to EN ISO 354, **LuxCushion™** tests an impressive sound absorption coefficient of **0.40**.

**0~0.05**

Hard Flooring  
(Wood, Concrete, etc)

**0.15~0.20**

Carpet with typical backing



LVT

**0~0.10**

**LUXCUSHION™**  
Carpet with LuxCushion™

**0.4**

Note: sound absorption of other flooring coverings is a reference value and will vary depending on products



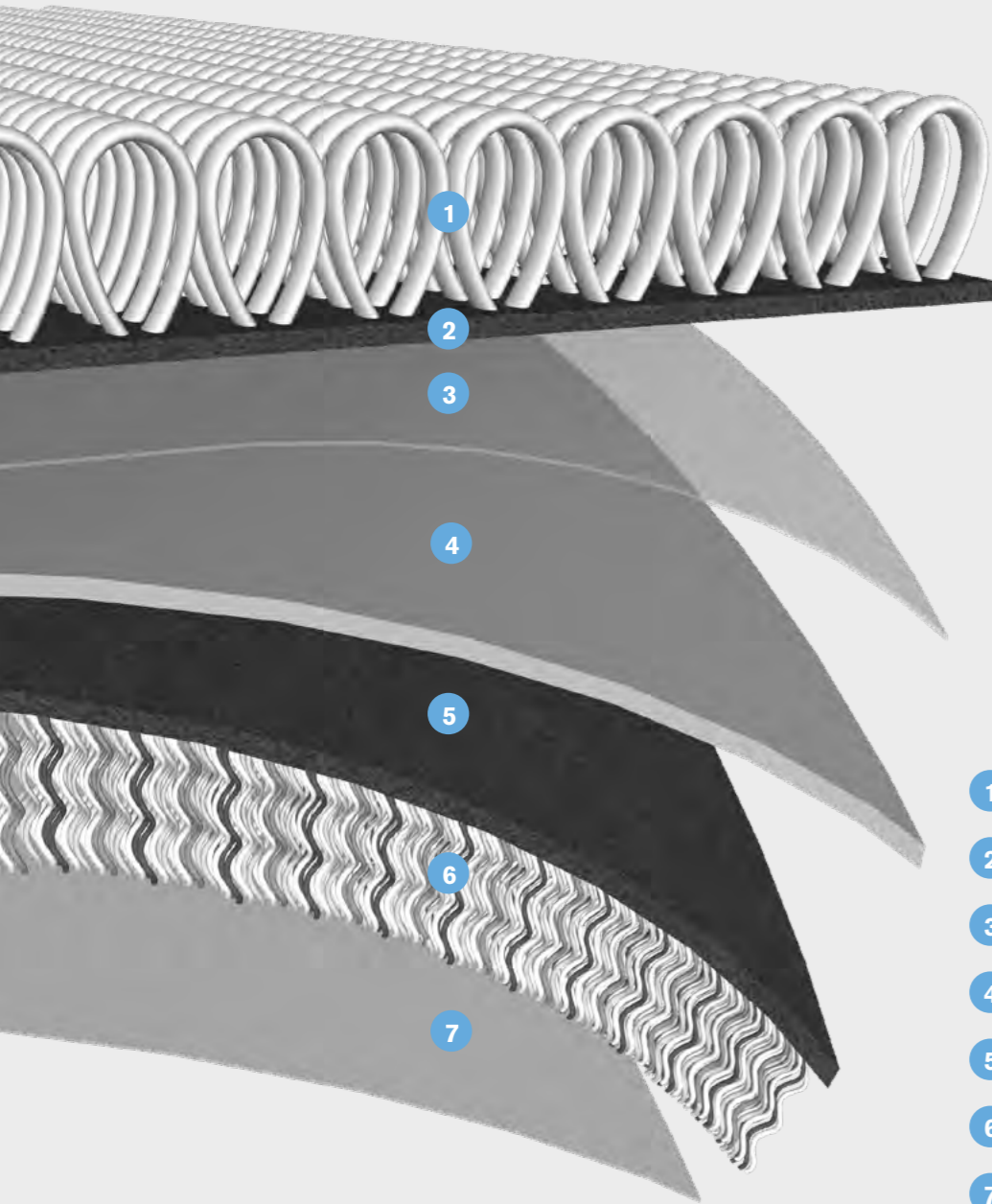
## Safe Materials and Special Treatments Improve Indoor Comfort



People and indoor space  
interact with each other

Indoor pollutants contribute to health risks. LuxCushion™ functions to restrain the emergence and growth of these health hazards, and creates a safer and healthier indoor environment.





- 1 nexlon™ premium solution dyed nylon
- 2 Non-woven fabric
- 3 Water-based latex
- 4 Fiber glass
- 5 Non-woven fabric
- 6 Repurposed nylon fiber
- 7 Protection



## Minimum TVOC

LuxCushion™'s simplified structure requires less adhesive, and thus fewer chemical emissions of TVOC generated during manufacturing. LuxCushion™ has [passed the TVOC testing in many countries, providing safety and reliability.](#)



## Plasticizer Free

**No plasticizer** has been added during the manufacture. It leads LuxCushion™ to be a [safer and more environmentally-friendly choice.](#)



## Reduces Indoor Odor

EcoFresh™ technologies use a mixture of organic and inorganic ingredients that do not contain any harmful chemical substances. Embedded in the carpet, it benefits the removal of indoor odors. **The lasting deodorant effect helps refresh the indoor air.**



## Anti-microbial

Tuntex's unique **anti-bacterial** and **anti-mildew treatments** can effectively reduce health threats and concerns caused by bacteria, microorganisms, and mold. It can inhibit the growth of staphylococcus and aspergillus niger **to safeguard your health and living environment.**



# DESIGN FOR FUTURE



Stronger guardian, ideal space for next generation



Louder voice, green space for a more sustainable future



## Design for Future

The ideal design is not only about today, but also the future. LuxCushion™ applies the novel pending technology to education space, aiming to create a more comfortable and safer environment for the growth of the next generations. The environmental-friendly concept embedded in the design of LuxCushion™ is more about the well-being of mankind. In light of energy-saving, emission reduction, extending the life cycle of carpets, recycling, and reusing, carpet can be more than itself.



# Ideal Growing Space For Next Generation



Space environment affects physical state. Similarly, the design of education space acts critically on the growth of children. LuxCushion™ accommodates the various demand for childhood education and can provide a better growth environment for the younger generations.



## Enjoy the Silence

Reduced noise to achieve a high level of concentration

## Health and Vitality

Improved softness to provide better support and relieve fatigue

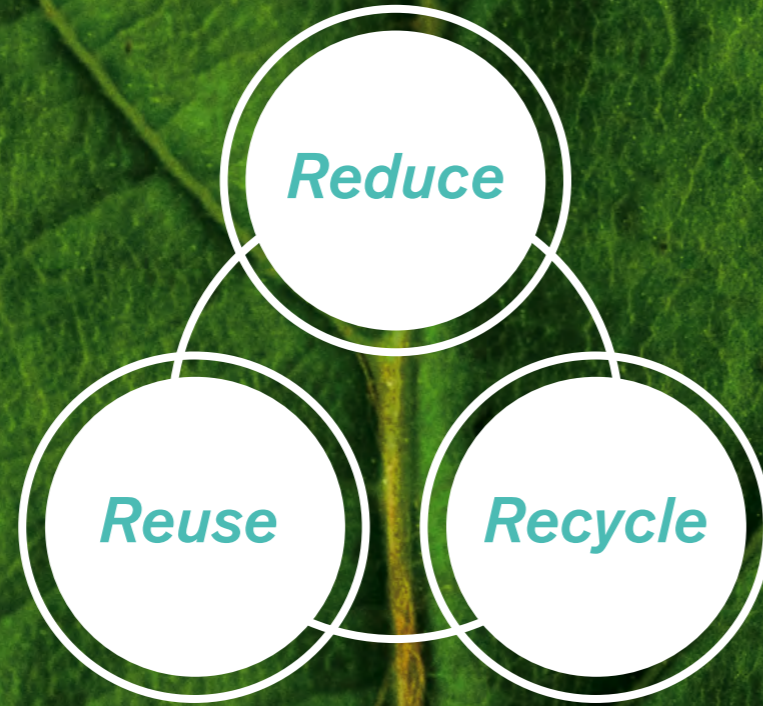
## Extra Care with Credibility

Extra provided cushion to reduce risks caused by accidental falls

## Safety and Reliability

Controlled pollution to make indoor air and the environment safer



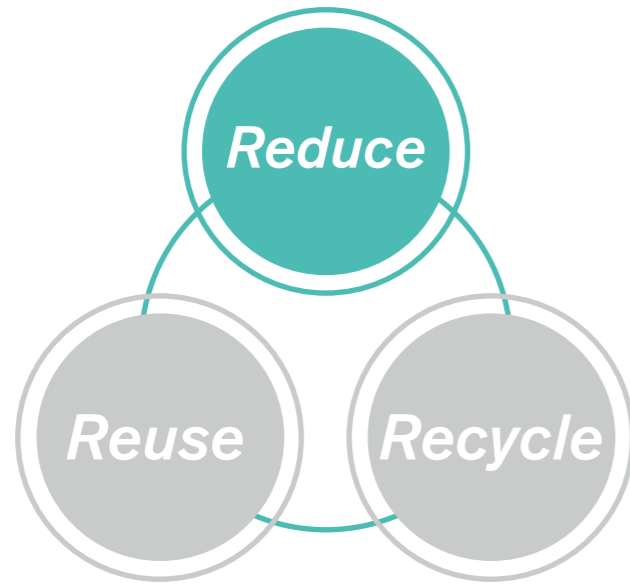


**TUNTEX™**  
**Call For 3R**

## Seeking a Better Tomorrow



Tuntex has always been seeking green manufacturing through continuous innovations. The concept of sustainable development also runs through the research and development of LuxCushion™.

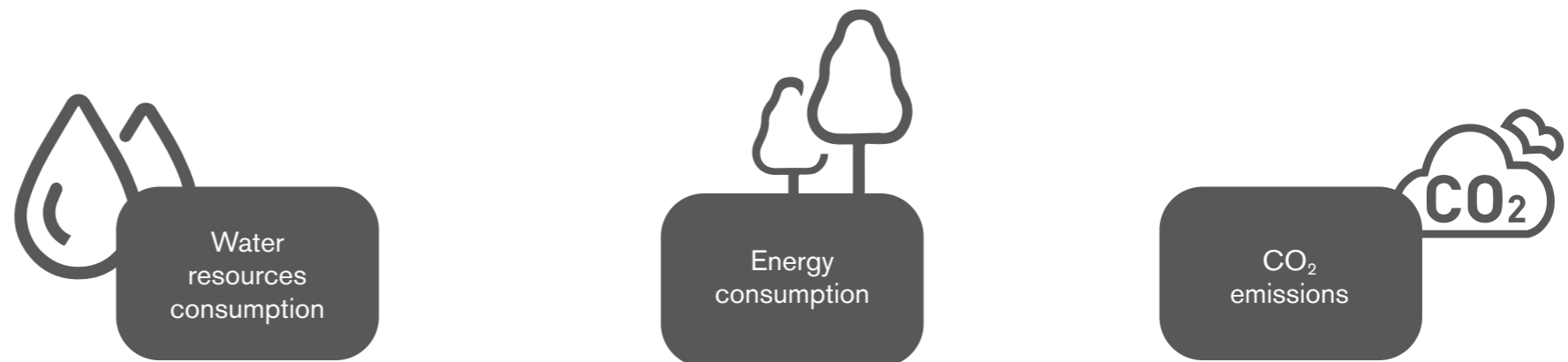


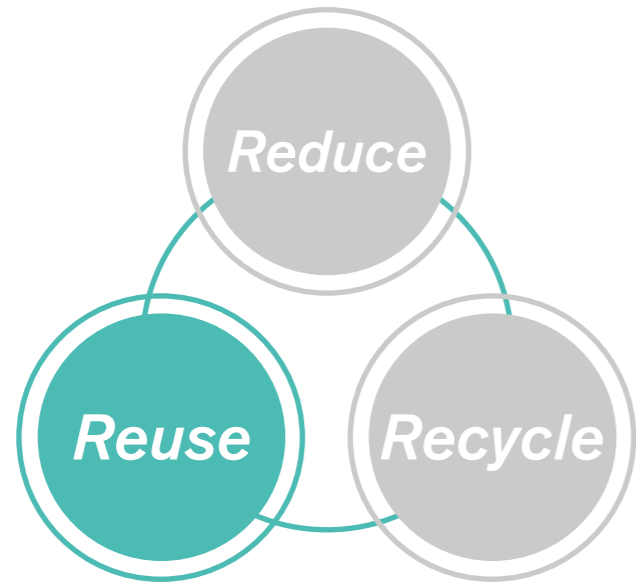
By shortening manufacturing process and logistics distances, it helps to achieve an overall reduction of **water resources, energy, and carbon emissions.**



LuxCushion™ repurposes high resilience nylon that is a byproduct from yarn wasted during the carpet manufacturing process and directly reproduces into the backing in the original factory. Energy, resources and carbon emissions that were required in the past have been decreased to protect the environment.

Traditional backing systems require a tedious flow path from raw plastic to finished products, which consumes a great deal of water resources and energy, and generates plenty of carbon emissions.





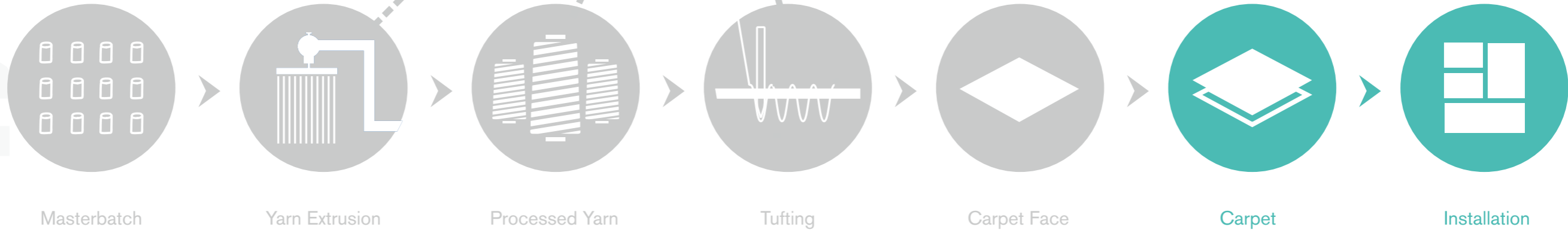
Without a tedious recycling process, wasted yarn is **collected and reused directly** in order to maximize the utilization of resources.

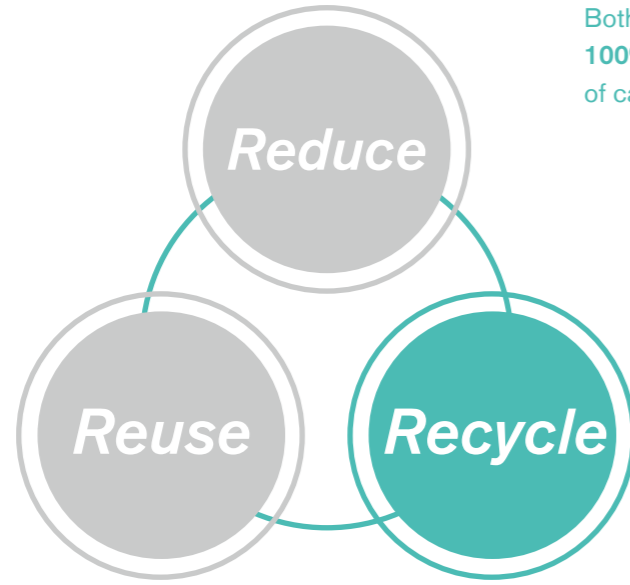


Now, Tuntex collects directly and converts these wasted yarns into available materials for the production of LuxCushion™ which maximizes the resource efficiency.



From yarn extrusion to carpet manufacturing, every linkage in the production generates wasted yarns. Normally, these wasted yarns will be discarded directly or reproduced through a lengthy process.





Both the face yarn and the backing are **100% recyclable** to create the green cycle of carpet production.



LUXCUSHION™



**LUXCUSHION™**

# Better Flooring Solution For Indoor Space

## Education

Secure the growth with eco-friendly materials



## Health and Wellness

It offers health and comfort, creating a safe and livable environment





## Hospitality

Enhance indoor aesthetics with beauty and functionality

## Office

Delight your mood with softness and anti-noise



## Senior Care

Create pleasant living area with fresh vibe and safety-shielded function





LUXCUSHION™



LUXCUSHION™  
Cloud



LUXCUSHION™  
Air



## Experience Comfort 2 Ways

At the intersection of innovation and versatility, we bring you two LuxCushion™ backing types designed to meet the diverse needs of modern spaces.

Whether you prioritize the luxurious comfort of **LuxCushion™ Cloud** or the lightweight versatility of **LuxCushion™ Air**, these products empower you to create spaces that fulfill your flooring needs—without compromise.

# LUXCUSHION™ Cloud



# Cloud - like Plush



## Cloud-like Plush

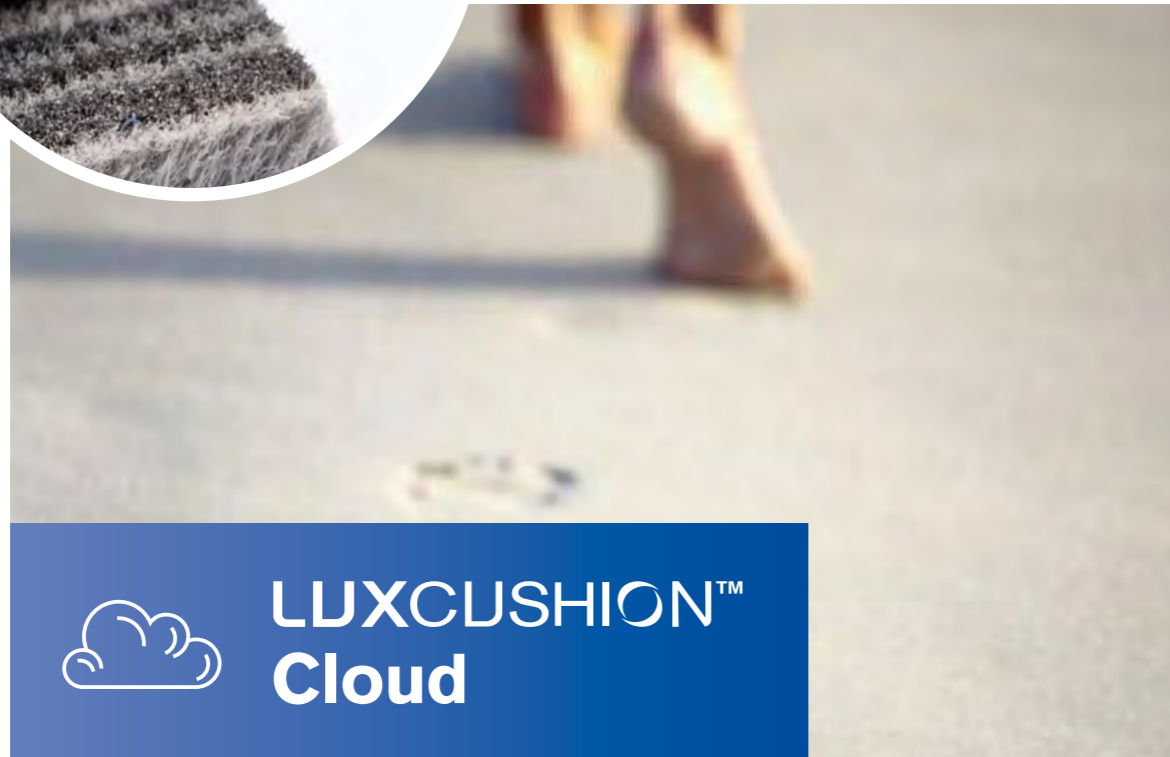
**LuxCushion™ Cloud** embodies the pinnacle of comfort and design in modular tile carpets. It offers premium cushioning, enhanced durability, and a luxurious underfoot feel, ideal for high-end commercial spaces where elegance meets functionality.

## Step Into Luxury

LuxCushion™ Cloud products can be up to 14.5mm thick, bringing a new sense of comfort and creating a relaxing indoor experience.



Thickness  
up to  
**14.5**  
mm



**LUXCUSHION™**  
**Cloud**

## Well-being Oriented

The flexibility of LuxCushion™ Cloud is far greater than traditional PVC backing, which minimizes knee stress and makes it easier for users to get tired from standing or sitting for long periods of time.

# Air - like Ease

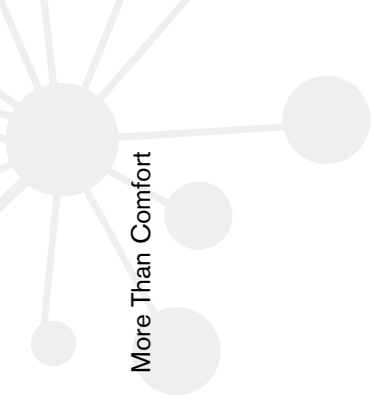


LUXCUSHION™  
Air



## Air-like Ease

LuxCushion™ Air is designed for dynamic environments where adaptability, ease of installation, lightweight construction, and comfort are key considerations.



More Than Comfort

## Lightweight Comfort

Providing ease of movement, installation, and reconfiguration, **LuxCushion™ Air** is perfect for agile workspaces, co-working offices, and environments that prioritize flexibility without compromising comfort.



# LUXCUSHION™ Air



## Lightweight Comfort

With an inspiring collection of designs ranging from Biophilic influences to linear forms, **LuxCushion™ Air** is able to accommodate both design and functionality needs.



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