

Classification Tool

**Flooring
Impacts**

10 Flooring Features that Impact a Neurodiverse Environment

- 1 Acoustics**
Hard surfaces allow more sound to reverberate throughout a space, such as foot traffic and conversation. Soft surfaces help dampen sounds to reduce feeling self-conscious when moving through a space or speaking to a colleague.
- 2 Orientation and navigation**
People who are neurodiverse sometimes have an aversion to looking straight ahead or looking others in the eyes. In these cases, flooring patterns and colors can be critical in navigating a space.
- 3 Pattern**
Flooring patterns contribute to a space having visual clarity or complexity. Certain patterns can be beneficial to some people, while others can be disorienting.
- 4 Creating space definitions and territories**
Changes in flooring help to identify a change in zone or space type.
- 5 Tone**
Critical in creating either calm or invigorating spaces.
- 6 Texture**
Texture can create either a sense of comfort or contribute to visual interest in a given space.
- 7 Friction**
Different flooring surfaces will either be slippery or help users to feel secure.
- 8 Temperature**
Changes in flooring types will cause people to feel differences in temperature. For example, there is a natural perception that hard surfaces are cold and plush carpets are warm and cozy.
- 9 Smell**
Flooring materials and adhesives contribute to the olfactory stimuli in the space. For example, rubber products will smell differently than carpet tiles.
- 10 Maintenance**
Products that are easy to maintain contribute to predictability and aid in creating a sense of cleanliness and order, which many find comforting.

Based on the findings from our 2022 'Sensory Processing, Neurodiversity and Workplace Design' research report.

KEY FINDINGS

One of the most commonly overlooked workplace challenges is sensory processing and our sensitivities to the daily onslaught of sensory stimuli. Humans are sensory beings, constantly receiving sensory input. In fact, we receive 11 million bits of sensory information every second (only 50 of which we can process consciously).

Neurodiverse thinkers often can be over- or under-stimulated by factors in their environment such as lighting, sound, texture, smells, temperature, air quality or overall sense of security.

DESIGN CONSIDERATIONS

Any comprehensive approach to designing space should address the factors that impact all occupants, neurodiverse individuals included.

FLOORING IMPACT

Wherever possible, opt for low VOC materials, AirMaster carpet tiles that capture and retain fine dust and flooring that provides improved acoustics and thermal comfort.

Consider carpet tiles like –
AirMaster, AirMaster Earth /
Reflection / Sphere



Flooring Impacts | Key Considerations when Selecting Flooring

Based on the findings from our 2022 'Sensory Processing, Neurodiversity and Workplace Design' research report.

KEY FINDINGS

47% of respondents to the survey consider themselves hypersensitive while 22% consider themselves hyposensitive.

Some individuals are both hyposensitive to some sensory stimulation while being hypersensitive to others.

DESIGN CONSIDERATIONS

Providing work space is paramount as every individual response is unique to stimuli in an environment.

FLOORING IMPACT

Provide a variety of work settings for individuals to select the space that best supports their tasks throughout the day.

Consider evaluating each situation to select appropriate materials for the intended use of each space.



Flooring Impacts | Key Considerations when Selecting Flooring

Based on the findings from our 2022 'Sensory Processing, Neurodiversity and Workplace Design' research report.

KEY FINDINGS

The use of color is a significant consideration. Blues and greens tend to calm and reassure while yellow, orange and red tend to stimulate and uplift. Jarring or clashing colors that neurotypical people may overlook can deeply disturb others with heightened sensitivity.

Individuals with low vision find visual contrast between surfaces and planes (floors, walls, ceilings) helpful in comprehending and navigating space.

DESIGN CONSIDERATIONS

Create non-stimulating color schemes intermixed with areas of high stimulation. Muted and natural colors tend to be more calming and cause less sensory overload than vivid tones.

Colors that occur in nature in abundance, such as browns, greens and blues can be comforting and calming.

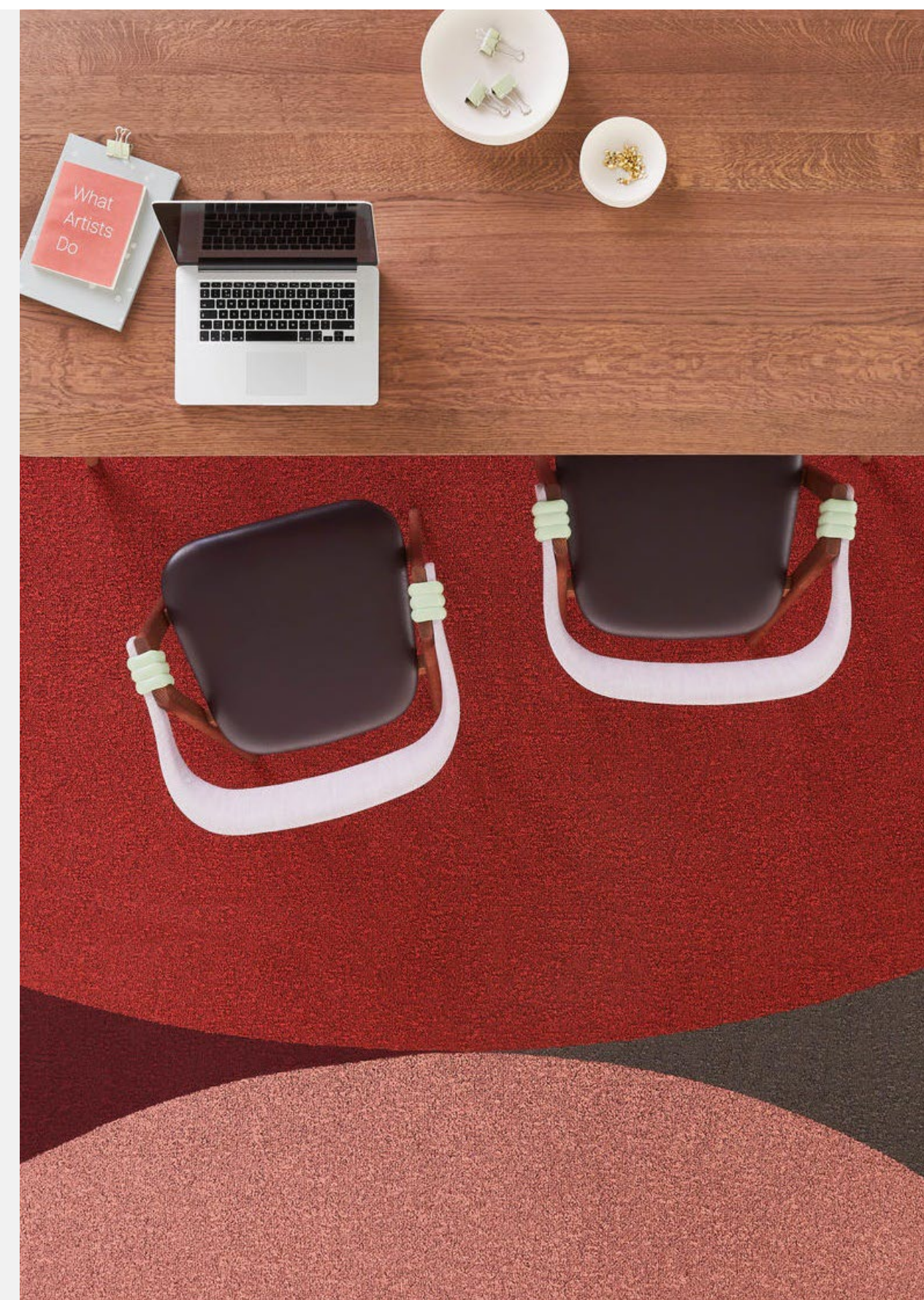
FLOORING IMPACT

Suggest evaluating floorplan and lighting conditions to select appropriate material palette schemes.

All DESSO carpet tiles feature a wide variety of textures, colors and patterns.

Consider – Fields, Essence Stripe / Structure and Serene for Hyposensitive.

Consider – Solid and Recharge for Hypersensitive.



Flooring Impacts | Key Considerations when Selecting Flooring

Based on the findings from our 2022 'Sensory Processing, Neurodiversity and Workplace Design' research report.

KEY FINDINGS

77% of the respondents noted they have a heightened, hypersensitivity to sound.

But it's also important to note that 30% of the respondents needed a higher level of auditory and visual stimulations.

DESIGN CONSIDERATIONS

Anything we can do to help control noise levels and transmission within the space can be highly beneficial.

Creating some spaces that have a higher energy level or buzz is important, not only for social gatherings but even for some individuals to be able to focus.

FLOORING IMPACT

With DESSO carpet tiles a wide variety of SoundMaster acoustic backings are available to reduce noise levels and improve acoustics.

Consider carpet tiles like – AirMaster or Arcade with SoundMaster acoustic backing.



Based on the findings from our 2022 'Sensory Processing, Neurodiversity and Workplace Design' research report.

KEY FINDINGS

62% of the respondents noted they have a heightened, hypersensitivity to visual stimulation and find them distracting. People with neurological, sensory processing challenges can be confused by large patterns.

Often, they see these patterns as barriers or even a level change. Geometric patterns and forms such as stripes, bars, solid blocks, and/or perforated materials can also be misinterpreted as steps, independent forms or holes that are disorienting.

DESIGN CONSIDERATIONS

Avoiding distracting or confusing patterns is also beneficial in spaces where people are working in for extended periods. Avoid patterns that create optical illusions, generate visual noise and create confusion.

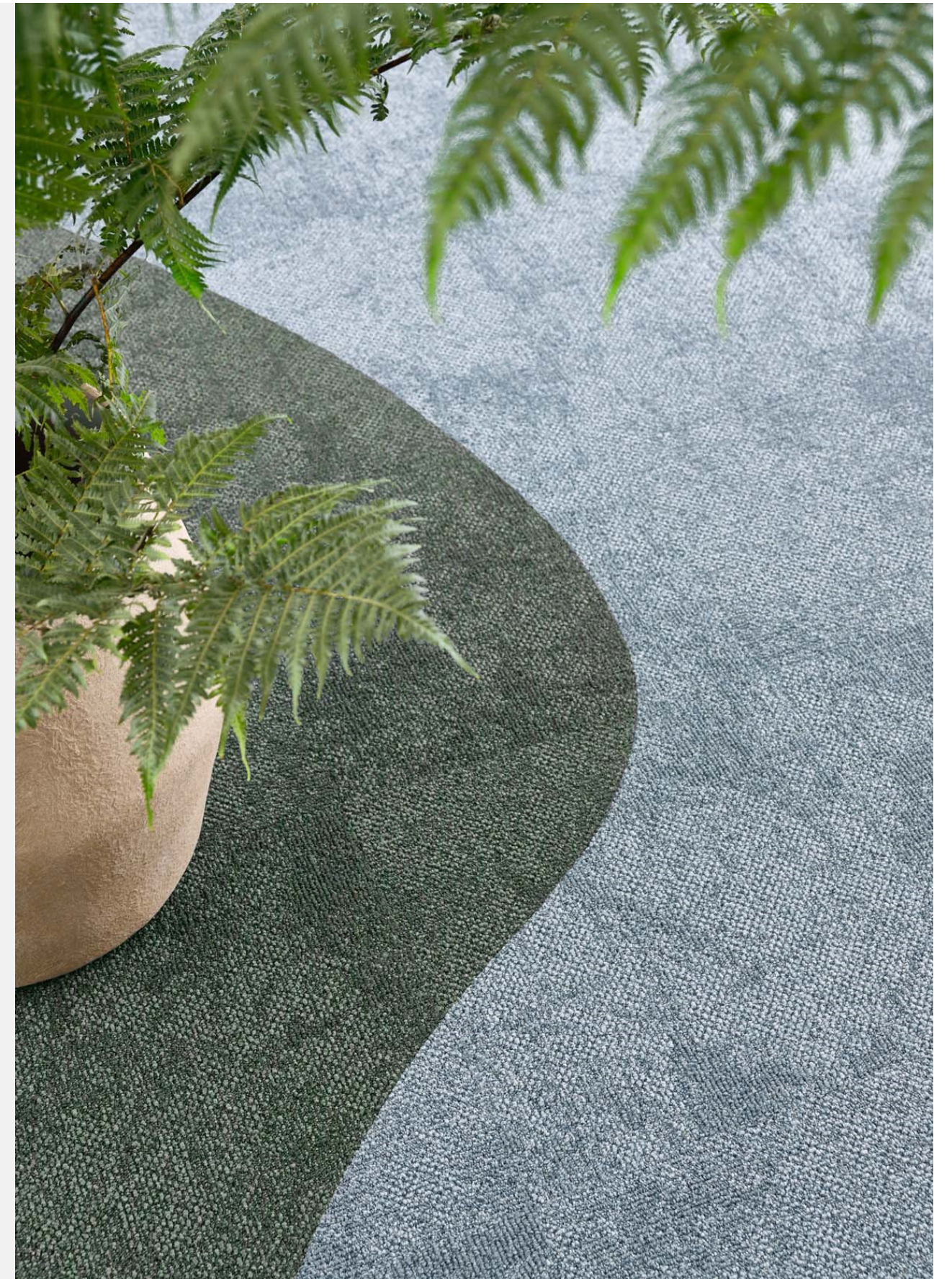
Opt for flooring surfaces that are matte or low-sheen as shiny surfaces can appear to be slippery or wet and can cause confusion with those with poor sight or sensory processing challenges. Bold patterns in the peripheral field of vision where people are working should be avoided as it can be highly distracting.

FLOORING IMPACT

Suggest evaluating floorplan and lighting conditions to select appropriate material palette schemes.

All DESSO carpet tiles feature a wide variety of textures, colors and patterns.

Consider – Solid and Recharge for Hypersensitive.



Flooring Impacts | Key Considerations when Selecting Flooring

Based on the findings from our 2022 'Sensory Processing, Neurodiversity and Workplace Design' research report.

KEY FINDINGS

Pattern and texture also contribute to sensory stimulation. Like patterns, texture can dial up or down the intensity of stimulation in the environment.

Individuals with ADHD seek out more tactile stimulation but less auditory and visual input.

DESIGN CONSIDERATIONS

Sculptured flooring with low contrast, pattern and subdued tones provided texture, while dampening sound and not adding to visual chaos can address many needs within the space.

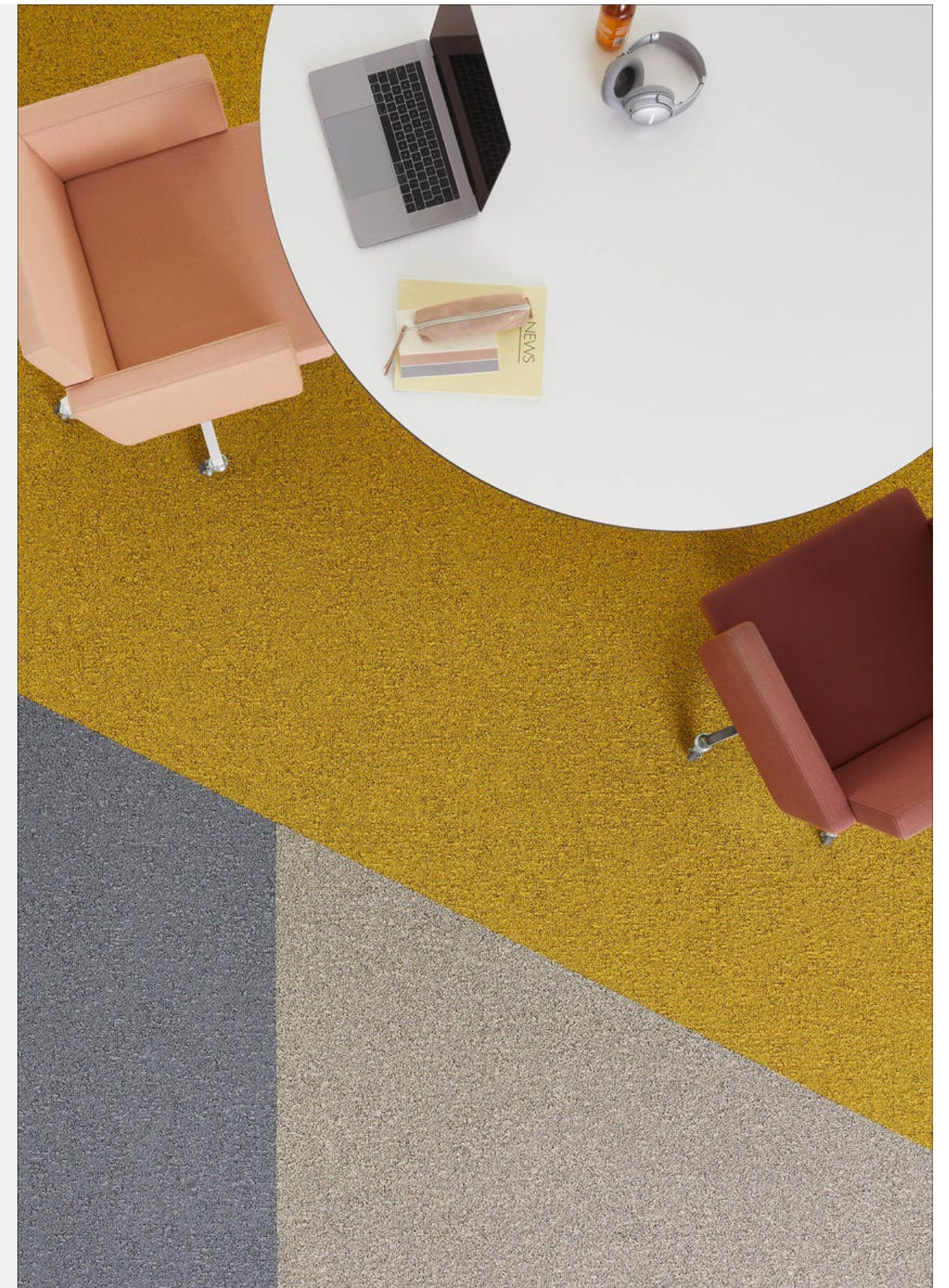
Using predictable patterns and incorporating symmetry or fractals can help people understand, manage and navigate their world.

FLOORING IMPACT

Suggest evaluating floorplan and lighting conditions to select appropriate material palette schemes.

All DESSO carpet tile collections feature a wide variety of texture, color and pattern.

Consider – AirMaster Sphere or Fields.



Flooring Impacts | Key Considerations when Selecting Flooring

Based on the findings from our 2022 'Sensory Processing, Neurodiversity and Workplace Design' research report.

KEY FINDINGS

22% of the respondents noted they needed a higher tactile experience.

Specifically, individuals with ADHD seek out more tactile stimulation but less auditory and visual input.

DESIGN CONSIDERATIONS

Creating richer tactile experiences or texture within spaces that individuals can engage and aid with auditory controls can be comforting to occupants.

Areas designed with heavier pile height, or sculptured surfaces, or even shag rugs, could be strategically placed in spaces with higher textured vertical surfaces as well.

FLOORING IMPACT

Suggest evaluating floorplan and lighting conditions to select appropriate material palette schemes.

All DESSO carpet tiles feature a wide variety of textures, colors and patterns.

Consider – Linon or Grezzo that feature multiple levels of texture and pattern.



Flooring Impacts | Key Considerations when Selecting Flooring

Based on the findings from our 2022 'Sensory Processing, Neurodiversity and Workplace Design' research report.

KEY FINDINGS

25% of the respondents noted they have proprioceptive and vestibular challenges, and their sense of positioning, equilibrium and balance can be impacted by design elements within a space.

DESIGN CONSIDERATIONS

Avoid overly confusing or disorienting patterns or use in strategic social areas with care.

For examples, stripes or strong color contrast can be read as stairs or a vertical change in levels.

Solid blocks can be misread as voids or holes and diagonal stripes can cause disorientation.

FLOORING IMPACT

Smaller-scale, structured patterns in neutral palettes can help reduce confusion and visual disorientation.

Consider – Fields, Verso or Desert, in neutral color palettes as thought starters.



Flooring Impacts | Key Considerations when Selecting Flooring

Based on the findings from our 2022 'Sensory Processing, Neurodiversity and Workplace Design' research report.

KEY FINDINGS

Often neurodiverse individuals are uncomfortable with direct eye contact, hence, may look down to avoid it.

In space where there is no delineation of pathways vs. work areas, or clues to help navigate the space, moving within shared spaces can be a challenge. Random patterns can also add to the confusion.

DESIGN CONSIDERATIONS

Patterns and subtle changes of color or materiality in the flooring can aid with wayfinding and navigation and help define zones within the space.

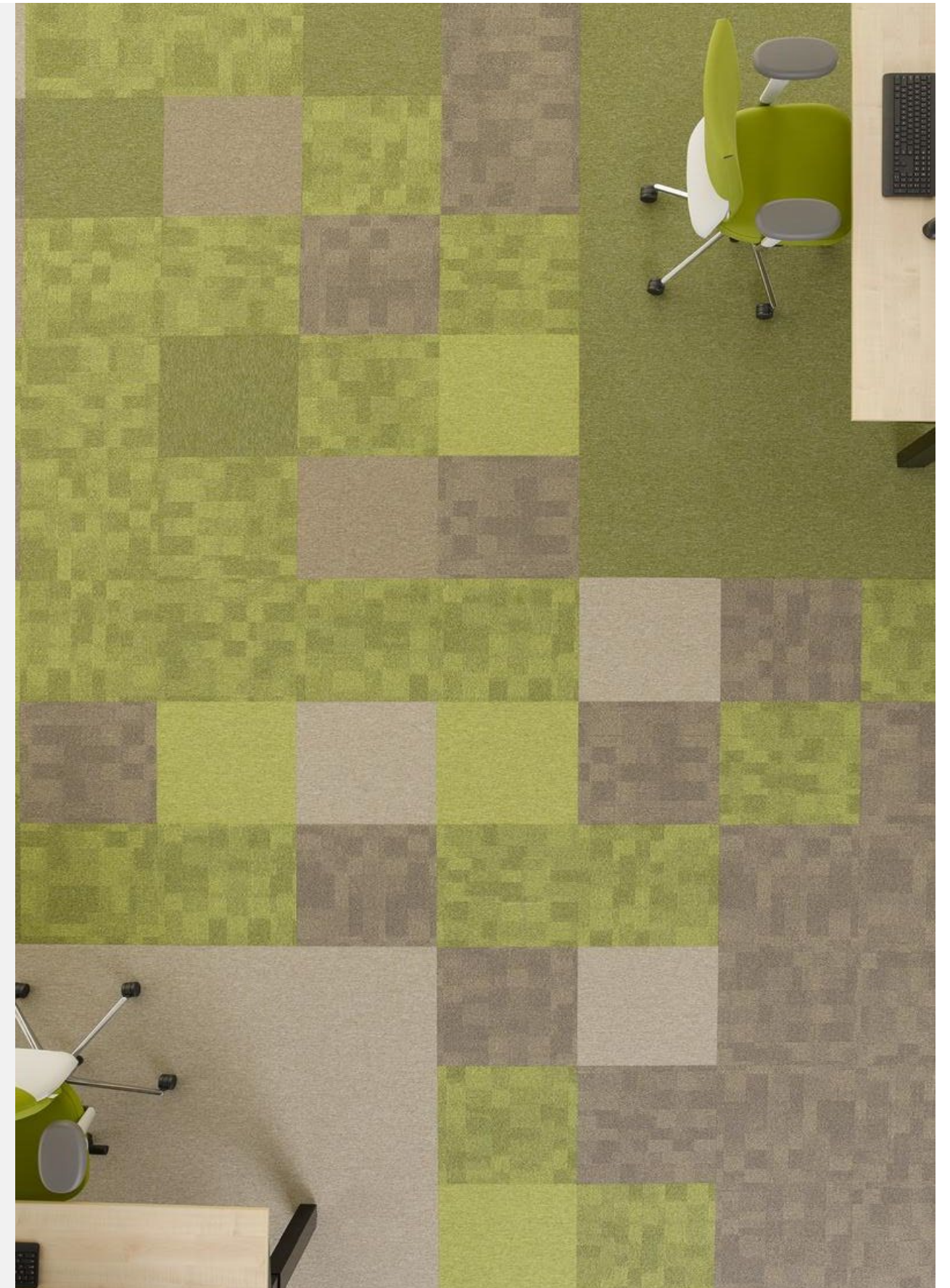
In shared spaces adjacent floor material should have a medium degree of contrast to aid those that tend to look down while navigating space. In facilities with elderly occupants adjacent floor material should have low contrast so people with dementia don't become confused or people with Parkinson's don't experience difficulty in initiating movement. Transitions should always use predictable, graduated color change.

FLOORING IMPACT

Suggest evaluating floorplan and lighting conditions to select appropriate material palette schemes.

All DESSO carpet tiles feature a wide variety of textures, colors and patterns.

Consider – Essence Maze or AirMaster Reflection in contrasting colourways.



Flooring Impacts | Key Considerations when Selecting Flooring

Based on the findings from our 2022 'Sensory Processing, Neurodiversity and Workplace Design' research report.

KEY FINDINGS

Poor air quality can negatively impact our processing ability and how we think. Autistic individuals tend to have a lower threshold for sensory stimulation and a higher sensitivity to olfactory and smells within the space as well.

DESIGN CONSIDERATIONS

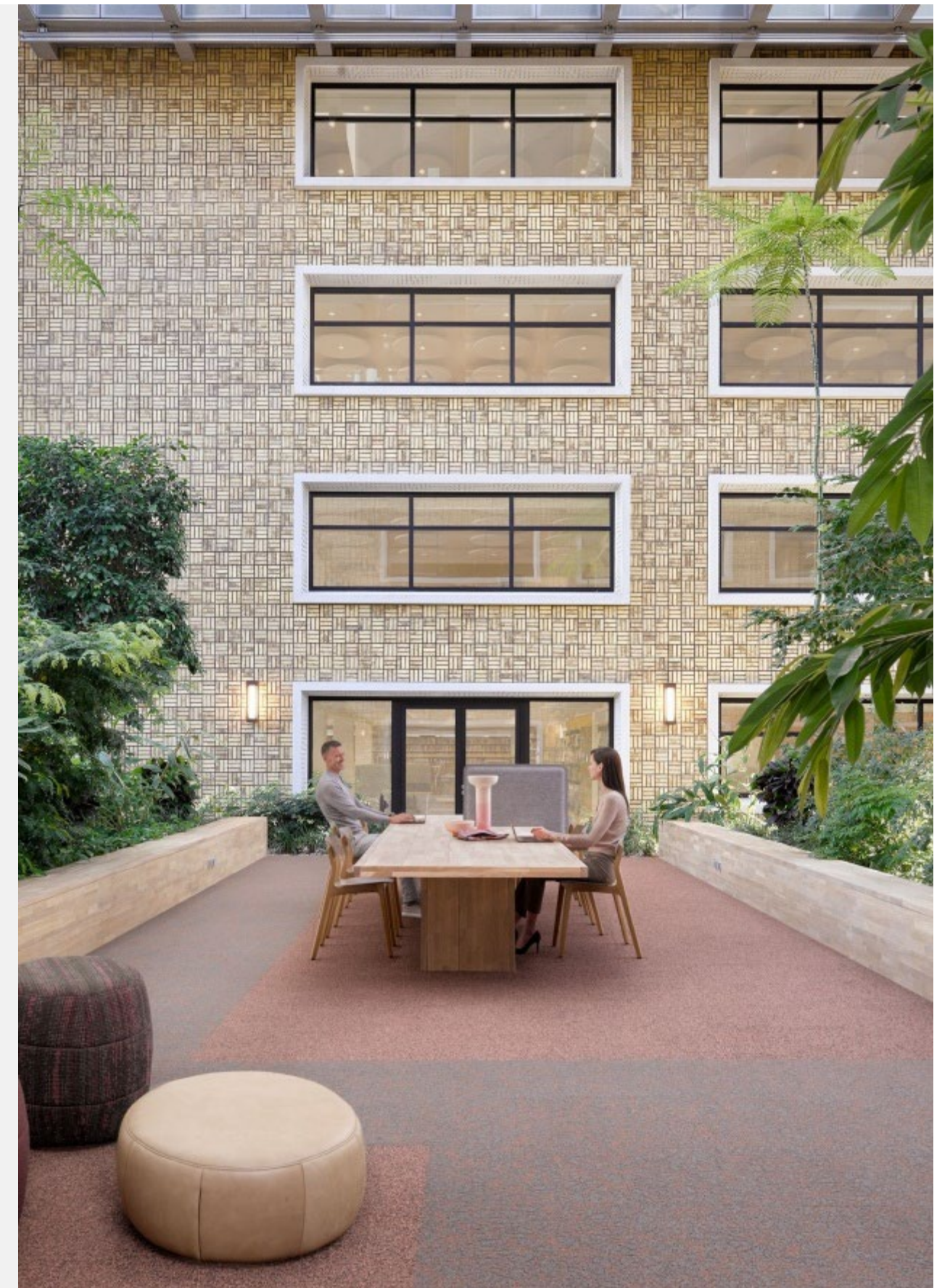
It's important to avoid any VOCs or materials that off-gas.

FLOORING IMPACT

Always select healthy materials with low VOCs and consider AirMaster carpets that capture and retain fine dust more effectively than any other flooring.

DESSO carpet tiles contribute to reducing fine dust and our AirMaster collections deliver the most optimal performance in reducing harmful fine dust in the indoor air.

Consider – AirMaster, AirMaster Gold or AirMaster Earth/ Reflection / Sphere.



Flooring Impacts | Key Considerations when Selecting Flooring

Based on the findings from our 2022 'Sensory Processing, Neurodiversity and Workplace Design' research report.

DESIGN CONSIDERATIONS

When planning work space it is advisable to lean towards designing for hypersensitivity.

That equates to creating environments with controlled stimuli such as organic, simple patterns; light, neutral colors; clean, orderly spaces; limited background noise; enabling personal space boundaries and avoiding excessive stimuli such as bright lights, crowds, unfamiliar scents, textures, or temperature fluctuations.

Incorporating natural elements also have a calming, comforting effect on individuals.

DESIGN CONSIDERATIONS

These spaces should be supplemented with more active areas that appeal to individuals that have hyposensitive leanings and need more sensory stimuli, such as layering of textures and planes; saturated, contrasting colors; plenty of visual interest; heightened sound levels or music; space to move/fidget and areas where they can physically engage the space tactilely.

FLOORING IMPACT

The DESSO carpet tile ranges are suitable to address a wide range of specification needs.

Consider – Palatino, Essence Stripe or Fuse Landscape that feature multiple levels of texture, pattern and bright colourways.

