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CPD Article

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Flooring for Dementia

According to the Alzheimer's Society, there are currently 850,000 people with dementia in the UK – a figure set to rise to over a million by 2025 and double that by 2051. One in 14 people over 65 will develop dementia, and the condition affects one in six people over 80.

Dementia is classified as “different brain disorders that trigger a loss of brain function”. These conditions are all usually progressive and eventually severe. Alzheimer's disease is the most common type of dementia, while symptoms include memory loss, confusion and problems with speech and understanding.

Given these symptoms, it is important that dementia patients are looked after in environments that maintain or improve their quality of life, as well as aid their health and wellbeing. Residential care homes and assisted living facilities, for example, need to be suitably equipped with the appropriate facilities to ensure dementia patients feel comfortable and safe in their surroundings. This not only applies to lighting, signage and appliances, but also to fundamental elements of interior design, including walls – and flooring.

This CPD article will focus on the key factors to consider when specifying and designing luxury vinyl tile (LVT) flooring for use with people with dementia.

[ref. <https://www.alzheimers.org.uk/about-us/news-and-media/facts-media>

Key Learning outcomes

- Continuous flooring surface.
- Differentiating between flooring and critical surfaces.
- Acoustics – reducing impact sound.
- Avoiding sensory overload.
- Health & Safety credentials.

1.0 Continuous flooring surface

Applications requiring dementia-friendly flooring include hospitals, day-care centres, rehabilitation clinics and residential care homes – as well as people’s own houses. Whatever the environment, flooring remains an integral part of an interior space.

A good reference point is BS 8300:2018 Design of an accessible and inclusive built environment (Part 2: Buildings – code of practice). This standard provides guidance on access within buildings, their internal facilities – and flooring.

Tone is one of the most intrinsic elements of any flooring for people with dementia, as there needs to be as little contrast as possible. In other words, the floor should be viewed as one continuous surface, as any large tonal contrasts can be interpreted as ‘a step’ by dementia sufferers, causing them panic and confusion – which could also result in a fall. This is particularly important when considering flooring in adjacent areas of a room or building.

LRV (light reflectance values) also have a key role to play. In architecture, LRV is “a measure of the percentage of visible and useable light that is reflected from a surface when illuminated by a light source”. In a dementia environment, flooring in adjacent areas should have similar LRV levels for the reasons identified above; both BS 8300 and the DSDC (Dementia Services Development Centre) stipulate flooring LRVs should be within 8 degrees of each other (the lower the better) and no more than 10 degrees.

Additionally, transitional ‘threshold’ strips between any two floor surfaces should match the tones of both surfaces, while any barrier matting should blend in tonally. Ideally, there should be no more than 3 degrees of LRV step difference. The same applies to any floor mats between rooms, as well as carpet edging or cover strips – while it should also be noted that any matting should be scrutinised and checked to ensure it is not a trip hazard.

LVT is available in a range of subtle nuances and styles, so is perfect when hues and tones need to be kept to similar levels. It also requires suitable lighting to ensure consistent degrees of LRV, either in a single room or throughout an entire building.



In a dementia care environment, the floor should be viewed as one continuous surface.

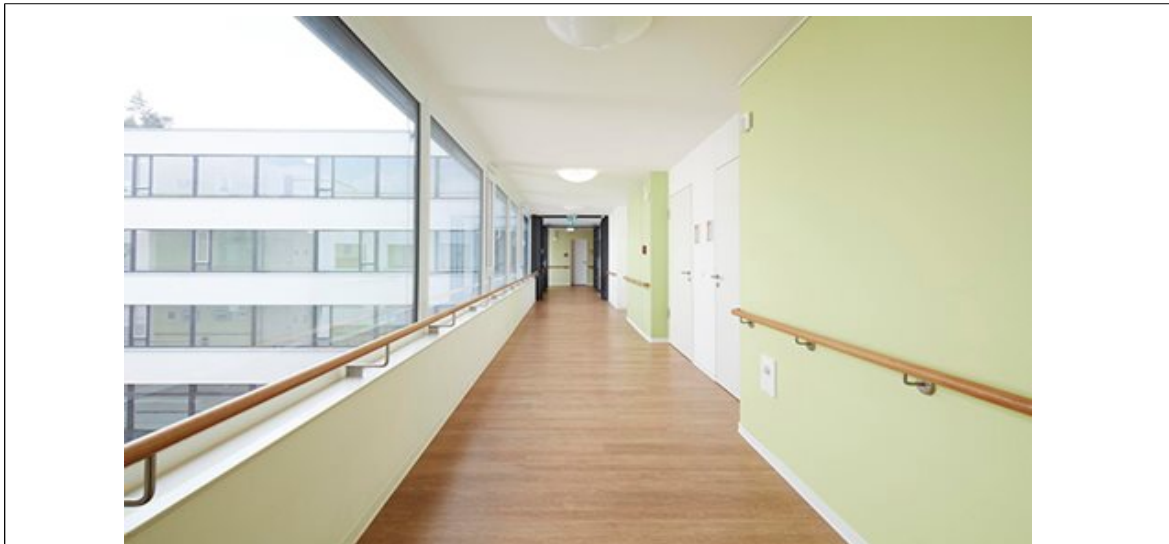
2.0 Differentiating between flooring and critical surfaces

While keeping the hue of a floor consistent is essential in a dementia-friendly environment, it is equally important that other areas, such as doors and walls, can be separately distinguished. This also applies to skirting, furniture and sanitaryware. In this instance, the DSDC and BS 8300 both recommend a difference of 30 degrees of LRV between critical surfaces – such as floors to walls, doors to walls, floors to steps or stairs, and on stair or step noses. The colour of the flooring on stairs should definitely contrast with the walls.

A large tonal contrast can also be used to separately zone off or create a 'visual barrier' between the spaces used by people with dementia and rooms or areas that are for care staff or medical professionals only. Similarly, different colours can be used as a visual aid to 'theme' corridors. LVT offers a wealth of colour options, making it an excellent choice when zoning different areas of a room or building.

Dementia can affect how well people can tell the difference between colours, as well as how they view objects in three dimensions, so using bright and contrasting tones can help items be seen more easily.

In terms of interior design colour options, cool hues such as blue and green help people to feel calmer. Alternatively, reds, oranges and yellows are stimulating colours, ideally used in activity areas to increase brainwave activity; stimulating colours are particularly good for Alzheimer's patients, as they can trigger memories and cognitive function.



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3.0 Acoustically sound

The sound and acoustics of an environment can have just as much an impact on people with dementia as visual elements. As with colour, acoustics need to be carefully balanced between not being too overwhelming (or unwanted) and not lacking so much that a space is dull and monotonous.

Utilising flooring products such as LVT with acoustic absorption abilities will ensure noise is kept at a manageable and tolerable level, as well as help reduce impact sound levels between rooms. This will prevent people with dementia from being disturbed or worried by any noises generated by sources such as feet, trolleys or vibrating machinery.

Acoustically enhanced LVT has been specially developed, with closed-cell 1mm foam backing layer, allowing some products to deliver sound reduction of up to 18dB. Using the same sound-absorbing material as the automotive industry to reduce noise in cars, this helps to provide enhanced comfort for occupants – not only in reducing sound transmission, but also resisting fatigue underfoot in high-traffic areas.



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4.0 Avoiding sensory overload

In a dementia-friendly environment, it is imperative to avoid sensory overload. As a result, it is important not to use flooring products with too many different colours, patterns or textures. Any logos and motifs should also be avoided, as any flooring that overloads the senses could lead to a person with dementia perceiving an obstacle or a hole, taking a false step, or interpreting a pattern as a hazard.

For example, a yellow and red swirl could be misconstrued as fire, strong greens seen as grass, or blue stripes could be perceived as water. Misleading patterns can also be distracting, causing a person with dementia to become disorientated, lose their balance or even suffer a fall.

Surface texture is another important consideration. Shiny floors can look wet or slippery, while spots and speckles in flooring may be perceived as debris or rubbish. People suffering from dementia will be much more at ease (and feel safer) walking over plain matt flooring.

LVT is available in a selection of laying patterns and styles created specifically for dementia-friendly environments. Simple stone or wood designs ensure consistent finishes across individual, public, activity and circulation spaces, while helping to avoid confusion and encourage movement. It can also support easy rotation, turning and general manoeuvrability of wheelchairs (if necessary).



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5.0 Health & Safety

Furthermore, LVT is available in non-slip, bacteria-resistant variants, further reducing the risk of injury to people with dementia. LVT safety flooring also provides resistance to chemicals and spillages, which is particularly useful in healthcare facilities, where different areas require specific levels of flooring performance and quality.

Modern LVT safety flooring uses near invisible particles, increasing friction levels between feet and its surface. As a result, it can offer exceptional levels of slip resistance while adhering to any specific design scheme requirements.

Slip resistant LVT has the added benefit of enhanced durability, thanks to its layered construction. A robust outer wear layer (which can be as thick as 1mm on premium safety flooring products) ensures resilience against high levels of traffic, while preserving the flooring's colour and appearance.

In addition, LVT is a non-porous surface (unlike carpet or wood), so is easy to clean and maintain; this is not only beneficial from an aesthetic viewpoint, it also ensures no smells build up through the spillage of foods, liquids or bodily fluids onto a floor's surface. People with dementia can react to certain odours, which can result in them becoming confused, stressed or anxious, so any flooring product that facilitates ease of cleaning is ideal.

Flooring is an essential part of a multifunctional, dementia-friendly environment. Given LVT's credentials as a durable flooring product that is both hygienic and easy to look after, it undoubtedly lends itself effortlessly to such applications, while helping to create a comfortable quality of life for people with dementia.



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