

Aged Care

DESIGN GUIDE

Designing
Dementia-
Friendly
Spaces



Towards better elderly care environments

Medical advances mean people are living longer, but older age brings its own challenges, like declining faculties and reduced mobility. Dementia can cause further complications.

We have written this guide to give you, the architects, designers and care home managers who create elderly care environments, a clearer understanding of the changes caused by ageing, especially when combined with dementia. Our aim is to help you make those environments as supportive as possible, with flooring as a key element.

Memory problems, difficulty processing information and impaired communication are among dementia's primary consequences. These are often accompanied by trouble in recognising surroundings or perceiving objects three-dimensionally. Using design to lessen the impacts of old age and dementia will significantly improve the quality of life for everyone affected.

“Well-designed flooring helps older people, particularly those with dementia, by encouraging activity and interaction, which boosts self-confidence and ultimately a sense of identity. The floor plays a key role as part of an environment that generates a feeling of well-being.”

Professor Rudolf Schricker, Chairman of the BDIA (Association of German Interior Architects & Designers)



Dementia and cognition

A term that describes a range of progressive disorders affecting the brain, 'dementia' comes in many different types. The most common is Alzheimer's disease, which accounts for over half of all cases, while vascular dementia represents a smaller but still substantial share. Among the biggest effects is on the cognitive function – the ability to absorb information and to reason. This often leads to difficulty in perceiving objects in three dimensions and interpreting the immediate environment.

Understandably, frustration and anxiety can result, sometimes leading to challenging behaviour.

UNDERSTANDING THE IMPACTS OF AGEING & DEMENTIA

DIFFICULTIES THAT COME WITH AGE



- Reduced ability to see contrast and light
- Reduced peripheral vision
- Reduced sensitivity to colour
- Discomfort from glare
- Irregular sleeping and waking patterns



- General loss of hearing
- Discomfort from loud noise or specific frequencies



- Loss of muscular strength

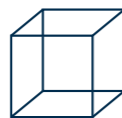


- Short-term memory loss

DIFFICULTIES THAT COME WITH DEMENTIA



- Inability to distinguish between colours
- Problems hearing over background noise
- Changed senses of smell, taste and touch



- Difficulty seeing in 3D
- Difficulty perceiving dimensions in single-coloured objects
- Inability to recognise pattern, shadow and gloss surfaces



- Difficulty communicating
- Difficulty with daily routine
- Susceptibility to mood swings
- Easily disoriented



- Confusion over times and dates
- Inability to recall recent events
- Difficulty recognising people and objects
- Reduced capacity for learning





Using decor to reassure

Our discussions with experts indicate the comfort that comes from familiar surroundings is important to elderly people, especially when moving into a care home.

The sight of recognisable designs with understated patterns or textures will reassure residents and may stimulate memory. We recommend that you avoid abstract or overly busy decorative motifs on the walls and floor to reduce the risk of confusion for people living with dementia, lowering stress levels.

USE DEMENTIA-FRIENDLY WOOD DESIGNS

Wood designs are key to create cosy home like atmosphere, but not all woods are adapted. This is why dementia-friendly wood patterns are needed, without knots, in line with dementia guidelines.

Calm & subtle grain without knots

> to avoid misinterpretation (busy patterns, holes or waves on the floor)

Medium size bevel type

> for easy identification of the floor to wood

Matt finish

> to avoid glare and shiny effect surface that could be assimilated to slippery floor

TARKETT'S DEMENTIA-FRIENDLY FLOORS

With these factors in mind, our designers create dementia-friendly floors that will not enhance difficulties or anxiety and that improve their orientation and spatial perception, enabling elderly people to move around more easily and manage better on their own.

Floors that convey warmth and reassurance, their designs helping to generate a sense of well-being.

The pattern and design of our dementia-friendly floors **have been assessed and rated by the University of Stirling's Dementia Services Development Centre (DSDC).**

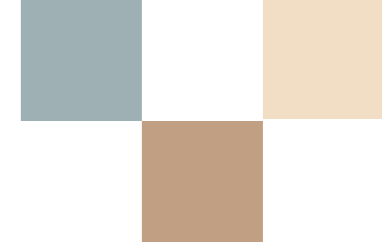
For our dementia-friendly range we have selected designs rated 1a and 1b, the most suitable for people with dementia:

- **1a:** Finishes within this rating are plain and can be used freely
- **1b:** Finishes within this rating are semi-plain (minimal texture or fleck and / or minimum contrast between fleck / pattern, wood effect with no knots) and, in general, can be used throughout an interior design scheme.

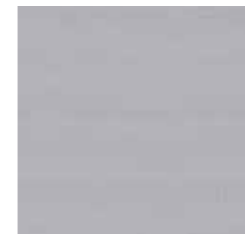
As far as light reflectance value (LRV) is concerned, our flooring designs have values **between 10 and 40 points** to avoid glare, something to which older eyes are sensitive.



This logo indicates the dementia-friendly approved designs in our range. Discover our full dementia-friendly designs on elderly-care.tarkett.com



FAVOUR PLAIN DESIGNS AND SUBTLE MARKINGS



Tissage-Soft Grey



Twine-Indigo



Uni Intense Jean



Fiber Wood-Natural



CHOOSE WOOD PATTERNS ASSESSED AS DEMENTIA-FRIENDLY BY EXPERTS



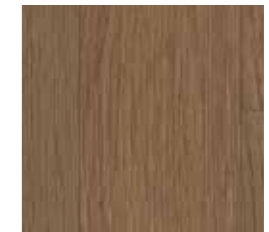
Fiber Wood Grege



Brushed Oak Medium



Oak Tree Beige



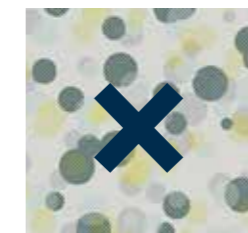
Serene Oak Warm Brown



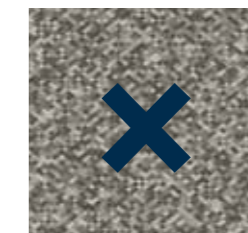
AVOID BUSY PATTERNS, DARK COLOURS AND HIGH-CONTRAST DESIGNS



Terrazzo-Terracotta



Bubbles-Cold Mix



Facet-Black & White



Cubic-Bright Anis



Harness contrast to boost orientation

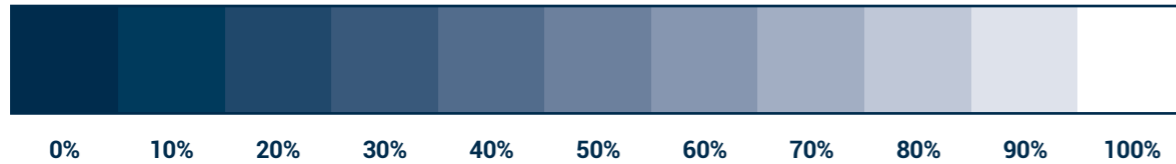
Faced with difficulties in recognising their surroundings, people with dementia tend to limit their own mobility.

Thoughtful interior design is thus essential to create spaces that are safe and easy to move around in. Lighter-coloured floors generate an uplifting impression of 'walking on air', while very dark shapes underfoot may be mistaken for a hollow area or hole.

FOCUS ON LIGHT REFLECTANCE VALUE (LRV)

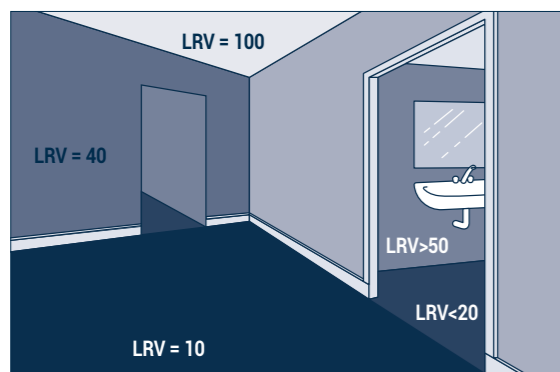
Light reflectance value is a measure of the light reflected from a surface illuminated by a light source. The LRV scale runs from 0, the darkest or least reflective, to 100, the brightest or most reflective. Factoring LRV into a design scheme will show the degree of contrast generated.

LRV scale



USE LRV TO CREATE EFFECTIVE CONTRAST.

We advise targeting an **LRV value between 10 and 40** for floors and using matt finishes to prevent glare and a glossy, wet look.



High contrast between the **floor and walls** and between **furniture and the floor** heightens visual perception. Aim for an LRV **differential of >30 points**.

Low contrast creates a smooth **transition** from **bedroom to wetroom** and from **bedroom to corridor**. An LRV **differential of <10 points** should be your goal here.

ENHANCE 3D VISION

High contrast makes objects like furniture easier to see and can be used to create pathways, isolate potential hazards or highlight the layout of a space.

Example of using contrast on walls and floors:



Wall LRV: 70 Floor LRV: 18

LRV differential = 52, good



Wall LRV: 70 Floor LRV: 65

LRV differential = 5, insufficient

ENCOURAGE MOVEMENT

Low contrast can encourage movement from one space to another. It can equally help conceal things, like the door to a room that is off-limits to residents.

Example of using contrast on adjacent floor surfaces:



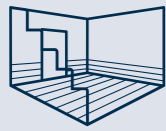
Hallway LRV: 28 Bedroom LRV: 20

LRV differential = 8, invites entry



Hallway LRV: 6 Entrance LRV: 30

LRV differential = 24, deters entry



Facilitate visual perception

The ageing process alters the perception of colour, with contrasts harder to identify and shades less vivid. Reds can start to appear pink, while distinguishing between tones of blue and green gets more difficult.

We advocate using light and contrast carefully with the right colours to help older people identify important features like doors, handles and furniture. This makes their surroundings easier to interpret and safer to navigate.

UNDERSTANDING CHANGES IN COLOUR PERCEPTION



Normal vision



Ageing vision

As the eye's lens gradually yellows with age, colour perception is affected. The elderly are **less able to perceive contrast**, colours become less vivid and more monochrome (red can start to look like pink) and they have trouble distinguishing shades of blue or green. Colour contrast is therefore **key to providing visual clues for doors, handles, controls and furniture**, thereby enabling residents with poor sight to **better make sense of their surroundings**.

MAXIMISE LIGHT

People with impaired vision need more light and **older eyes need two to three times more light than young ones to see properly**. Variations in light cause sight problems for the elderly, so uniform lighting is recommended along with the avoidance of shadow and darker areas, which can be unsettling to people with dementia.

Suggested levels of lighting and light distribution for specific areas

SPACE	LIGHTING INTENSITY (LUX)
Corridors	300
Activity spaces	350
Bedrooms Reading area	350
Bedrooms Ambient	250
Bathrooms	250

EXAMPLES OF COLOUR SCHEMES FOR A RANGE OF SPACES:

We recommend darker floors (with an LRV between 10 and 40) to provide the reassuring appearance of a plain, solid surface safe to walk on. The walls should be in contrasting colours with an LRV differential of >30 points.

Find out more design choices on elderly-care.tarkett.com



Aquarelle HFS Stone light warm grey LRV = 74	ProtectWall Tissé Fresh green LRV=61	ProtectWall Tissé Light aqua LRV=53

WETROOM	BEDROOM	CORRIDOR

MS Aqua Concrete warm grey LRV=19	Excellence Brushed Oak medium LRV=28	Excellence Serene Oak red brown LRV14
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Aquarelle HFS Uni Yellow LRV=67	ProtectWall Uni Light beige LRV=65	ProtectWall Tisse Warm grey LRV=76

WETROOM	BEDROOM	CORRIDOR

MS Aqua Concrete warm grey LRV=19	Excellence Fiber Wood natural LRV=28	Excellence Uni Intense terracotta LRV=23
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Relax and Breathe

A living space in which to read, play games or enjoy tea with friends. There's a calming, relaxed feel to this room with its enveloping furniture, soft materials and warm colours.



WALL – paint
FLOOR – Excellence - Serene Oak Red-Brown - LRV14

Sharing stories

A common room for sharing where memories and impressions of journeys past go back and forth across the dining table during a family-style meal.

The design inspiration blends an ethnic, multicultural look with vintage cues.



WALL – ProtectWall - Uni White Grey - LRV66
FLOOR – Excellence - Granito Warm Grey - LRV 37

Pure and Poetic

A place of constant comings and goings, where people's stories line the walls in a mix of the poetic and the personal.

The gentle, reassuring colour scheme is a comfort for residents and carers alike.



WALL – ProtectWall – Tisse Warm Grey - LRV76
FLOOR – Excellence – Oak Tree Grey - LRV 24



Personal Nature

A personal room inspired by nature in all its glory. The design is gently uplifting and forms a bridge between life indoors and the world outside.

A selection of authentic, warm textures to bring calm and peace into an intimate space.



WALL – ProtectWall - Uni White Grey - LRV66
FLOOR – Excellence - Brushed Oak Light - LRV28

Calm and Minimalist

Pure shades mix with stylish accessories in a minimalist yet cosy ambiance.

Such simplicity and comfort form a safe, reassuring environment so necessary in bathrooms like this.



WALL – Aquarelle Wall HFS - Stone Light Warm Grey - LRV73
FLOOR – Multisafe Aqua - Granito Warm Grey - LRV37

