



# SPECIFICATION

# FLOORS STAIRS & LIFTS

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# FLOORS FORM, FUNCTION & LEGISLATION

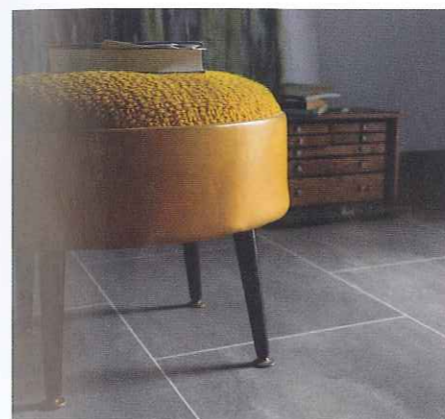
While aesthetic considerations are crucial in specifying the right floor, health and safety requirements are also vital, writes **Matthew Speck**, head of commercial at Karndean Designflooring



With both form and function sitting high on the client agenda, the responsibility is on architects more than ever to deliver an equal mix of aesthetics and performance when specifying the right floor for the right environment.

The Health and Safety Executive says slips and trips are the most common cause of injury at work. On average, they cause 40 per cent of all reported major injuries. Individual flooring manufacturers have adopted numerous testing formats, including the Rz Surface Roughness test, BCR Tortue (sled) test and ASTM 1028 American test, and this can cause confusion among architects. Likewise, the Building Regulations Part M states that floors should be slip-resistant, but does not offer a figure or recommend a test method. Leading flooring suppliers such as Karndean Designflooring are continuing

**Above** Karndean's Opus Carbo commercial floor planks installed at Blott Stationers, Tunbridge Wells  
**Top right** Karndean Opus Nero flooring  
**Above right** Karndean Opus Lounge Cameo flooring



to call on the European Committee of Standardisation (CEN) to create a harmonised test method.

#### Reducing the risk of slipping

The BS 7976 pendulum and DIN 51130/ DIN 51097 ramp tests are the preferred methods of testing slip-resistance in the UK, and are most recognised by the HSE. The higher the pendulum value, more commonly referred to in the industry as Slip Resistance Value (SRV), the higher the level of slip-resistance. Floor coverings can be tested in both wet and dry conditions, although generally wet readings are more highly regarded.

Previously, flooring products with an SRV of 36 and above were considered to be among the higher slip-resistant products available, particularly in luxury vinyl tile (LVT) flooring. Recently, however,

there has been a growing desire for floor coverings with an even higher SRV, especially in sectors such as hospitality, leisure and retail, and predominantly in areas where there is a high propensity for the floor to become wet.

The growing and competitive LVT market took early steps this year, with Karndean Designflooring introducing the industry's highest 40-plus SRV rating in the Pendulum Wet Test. Enhancing its PU coating for added grip, the Opus Enhance collection has seen Karndean hand-select designs from its established commercial Opus range.

The ramp test involves someone walking back and forth over flooring covered in oil and/or water at an increasing angle of inclination in order to measure slip tendency. DIN 51130 tests walking with shoes on an oily surface, the angle at which the slip occurs generates a rating from R13 down to R9, or 'unclassified' (there is no rating below R9), with a rating of R12 and above providing the best slip-resistance in commercial applications.

DIN 51097 tests walking barefoot on soapy water. The results are then classified as an A, B or C, with A being the lowest resistance and C the highest.

#### Colour contrast and light reflectance

In order to fully comply with the Equality Act 2010, incorporating the Disability Discrimination Act 1995 (DDA), architects require up-to-date Light Reflectance Values (LRVs). Building Regulations Part M and the DDA recommend that adjacent surfaces (eg floors and walls) have an LRV contrast of 30 points difference, thereby delivering sufficient colour contrast to avoid confusion for people living with dementia or sight problems.

Architects specifying more than one floor covering – such as vinyl and carpet – should look for the same or similar LRV rating. Likewise, architects need to be careful with

bold colours or busy floor patterns, as sharp changes in colour can be perceived as steps.

An RIBA-accredited CPD presentation by Karndean Designflooring, 'Inclusive Flooring Design: Where Form and Function Meet Legislation', is available to architects and specifiers. The curriculum covers legislation and requirements to accommodate the elderly and the vulnerable when designing new spaces.

#### BIM ready?

With the government's impending deadline for manufacturers and suppliers to be Building Information Modelling (BIM), Level 2 ready by 2016, architects should expect flooring manufacturers to already have their products available as BIM components. Karndean Designflooring was an early adopter of BIMstore, and offers one of the largest LVT collections of BIM components.

Taking into consideration the life cycle of a floor covering, BIM will have a positive impact in helping architects identify at the early stages whether a floor design will meet the individual requirements of government building projects. At the same time, BIM will retain vital specification details within a digital library, providing consistency and up-to-date information, helping to reduce the time it takes to tender for new work. It will also identify and resolve problems early in the design phase, when decisions can have the greatest impact on cost, schedule and sustainability.

Embracing digital specification tools will be one of the key developments to look out for in 2016. With increased competition, architects are already looking at ways in which they can work more closely with suppliers, and gain access to products online. To this end, as well as regularly updating its product selector app for architects to use at the point of specification, Karndean Designflooring has also introduced a new-look Commercial Floorstyle feature.