4.4 SURFACES

THIS SECTION DEALS WITH THE SURFACE CHARACTERISTICS OF WALLS, FLOORS, CEILINGS, FIXTURES AND FITTINGS. THE PERFORMANCE OBJECTIVES SHALL APPLY TO BOTH INTERNAL AND EXTERNAL USE.

PERFORMANCE OBJECTIVE

The materials forming the surfaces of walls, floors, ceilings, fixtures and fittings shall have surface characteristics that individually and / or in combination facilitate accessibility by providing an environment that is safe, has acoustic clarity and which aids visual orientation. Designers should utilise Light Reflectance Values as a means of creating a legible environment for those with visual impairments by providing contrast between surfaces.

4.3.1 MANDATORY PROVISIONS

The design of the building/public realm surfaces will satisfy the performance objectives if:

FLOORS

1. Floor finishes are suitable for both foot and wheeled traffic and are firm, level and slip resistant.
2. Adjoining surfaces are at the same level and have a similar coefficient of friction. Adjoining surfaces contrast visually where their coefficient of friction differs significantly.
3. Junctions between materials do not form trip hazards.
4. Surfaces with a Light Reflectance Value (LRV) higher than 80 are not used.
5. Changes in the texture of floor surfaces are used to warn of hazards or provide directional information.

WALLS

1. Shiny / highly reflective surfaces are not used.
2. The Light Reflectance Value (LRV) of wall is at least 30 points different to the LRV of the floor and ceiling to ensure that people with visual impairment can distinguish between the different surfaces. See figure 27.
3. Optimal visual contrast is provided between walls and doors and walls and switches and fittings.

CEILINGS

1. Where required to achieve an acoustically neutral environment the ceiling material has the appropriate acoustic absorption coefficient.

GLAZED SCREENS AND WALLS

1. Full-height glazing is provided with manifestation as section 7.1 Doors - external and internal.
2. Glass used for screens at reception desks or counters has a low light reflectance value.
3. The edges of free-standing glazed screens are provided with a high contrast edge strip.

4.3.2 MANDATORY DESIGN OBJECTIVES

GENERAL

1. The materials selected to create an internal or external environment should be considered with respect to their ability to enhance or reduce spatial awareness both visually and aurally.
2. The visual and aural spatial environments are created by the interaction of the selected materials with natural and artificial light andnatural and artificial sound. Lighting in particular can influence the way that spaces are understood through the interplay between light and shadow. Confusing shadows, highly reflective surfaces and glare should be minimised to avoid creating environments that are uncomfortable and potentially unsafe.
3. LRV's should be considered when selecting the colour and finish of materials and products. See figure 1. In some circumstances e.g. lighting levels greater than 200 lux on a surface with a LRV of 20 may be acceptable.
4. For people with hearing impairments the poor selection of or combination of materials can have a significant impact on their ability to communicate effectively and at worst can cause discomfort. A balanced / neutral acoustic environment should be the objective.
5. The use of deep pile or excessively profiled carpets and coir matting should be avoided as they can be difficult for wheelchair users and people with prams or wheeled luggage to travel across.
6. Textured materials can be used to aid wayfinding provided that users have been made aware of their significance in advance.

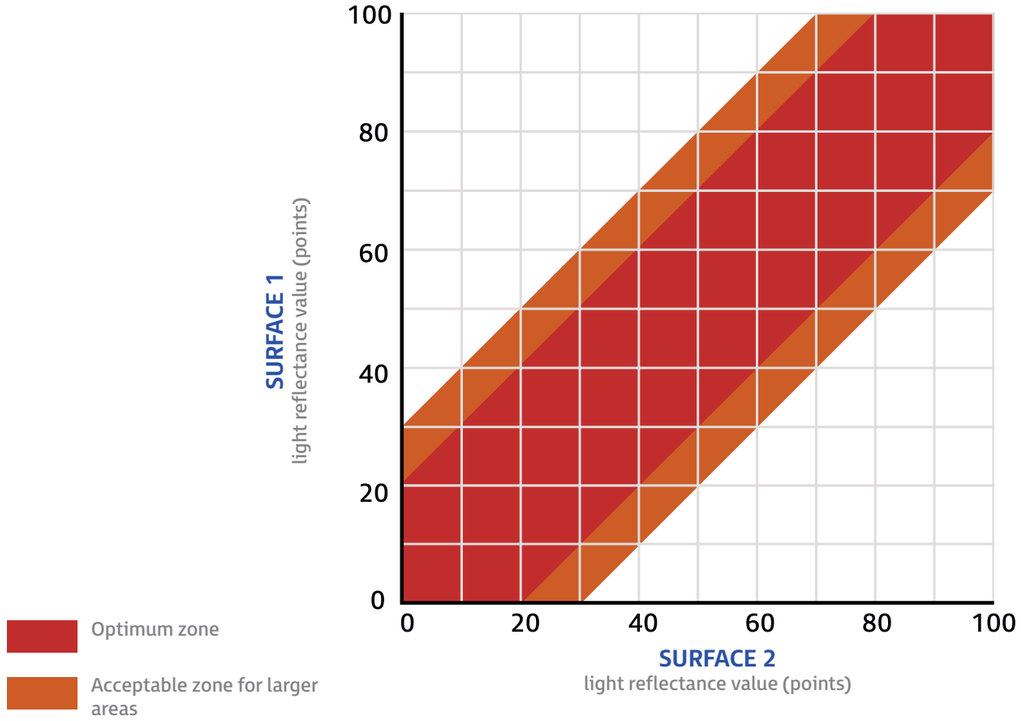

Figure 27 / Effectiveness of differing LRVs for adjacent surfaces