



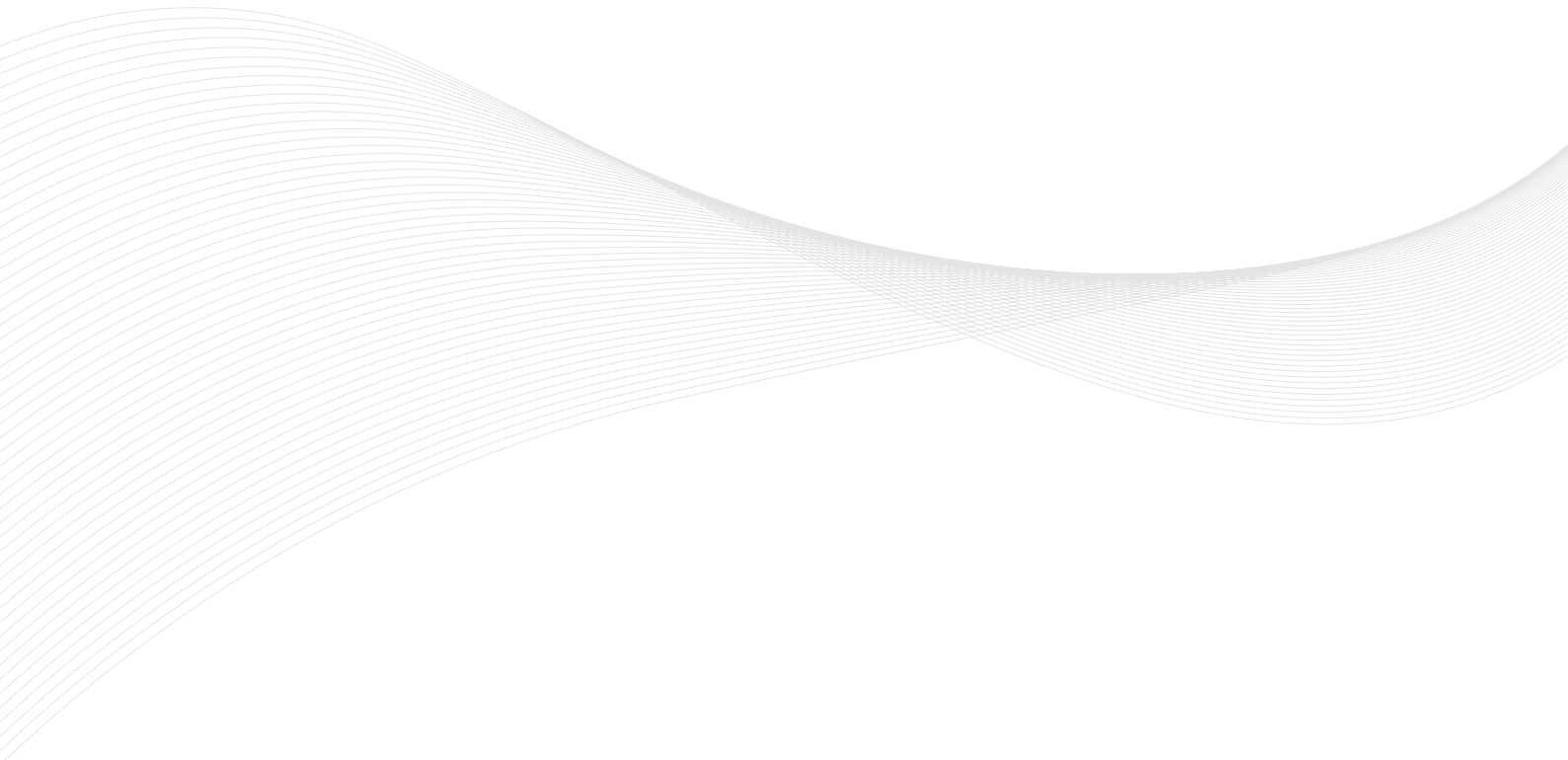
Understanding



Commitment

Disability Discrimination Act Guide

Equality For All



The Disability Discrimination Act: Tonal Contrast



Poor colour contrast, particularly with inappropriate lighting, can prevent individuals from functioning safely and independently. Giving due consideration to colour choice on adjacent surfaces could save someone from injury and assist people in wayfinding and orientating themselves around environments.



Critical surfaces are the most important elements in assisting somebody who is visually impaired in order to gather information and understand a space in terms of its dimensions, size and critical entrance and exit points.

The Code of Practice: BS 8300: 2001 'Design of buildings and their approaches to meet the needs of disabled people' whilst not law, nor offering a guarantee of compliance with the law, does offer hard and fast recommendations and guidance that specifically relate to designing for visually impaired people.

Section 9 of this Code of Practice states:

Floor, wall, door and ceiling surfaces can help or hinder the use of buildings by disabled people. For example, people with sensory impairments may have difficulty finding their way around spaces if they cannot respond to visual cues.

The extent to which floor, wall, door and ceiling surfaces enable disabled people to find and maintain their bearings and maintain their independent use of a building, is influenced by:

- a) the colour, light reflectance value (LRV) and texture of the surfaces;
- b) the treatment of components and finishing elements, such as doors, architraves, skirtings, cornices, handrails, etc. which define, or are contained within, these surfaces;
- c) the appropriate use of surfaces to clarify location and direction and to identify objects;

The Code of Practice: BS 8300: 2001 expands upon the importance of good visual contrast to help visually impaired people differentiate and define surfaces.

It equates the tonal value of a colour with a light reflectance value (LRV) and, in principle, states that areas with higher LRV differentials are more readily differentiated by the visually impaired.

This means that colours with identifiable LRV's can be used together to develop design schemes that meet the recommendations of BS 8300.

As people age it becomes more difficult to distinguish between colours; scientific research has shown that people over 80 have trouble discriminating between red and yellow or colour opposites such as red and green.

On the visible spectrum red and green are colour opposites but their light/dark (tonal) value is very similar. Squinting helps you mimick what a visually impaired person would see. By squinting, colour detail is lost but differences in light and dark or tonal contrast become emphasised.

It is scientifically proven that somebody who suffers from a visual impairment will still be able to differentiate between light and dark colours. To create an inclusive colour scheme there should be a minimum of 20 (best practice upwards of 30) LRV points difference between the following critical surface areas:

- walls and floor
- wall and ceiling
- doors and walls

Additionally, according to the RNIB, medium and smaller features should also have sufficient contrast, for example:

- Cupboard doors and walls
- Work surfaces to floors
- Utilities and their backgrounds
- Cupboard handles and their background
- Door furniture and the door itself
- Sanitary ware to wall and floor and bathroom wall to floor
- Grab rail and the wall
- Handrails and the wall
- Stair nosings to carpet
- Lift wall to floor
- Lift door to wall
- Stair flooring to wall

For more information on the Disability Discrimination Act, The Building Regulations, Approved Document M 'Access to and use of buildings' 2000, Code of Practice: BS 8300: 2001 and how Crown Paints can help, please [CLICK HERE](#).



N6790F
LRV: 79

P8121D
LRV: 12

Black Ash
LRV: 10.69

M7393S
LRV: 39

Walls to door 79 - 12 = **57** points contract
 Walls to floor 79 - 10.69 = **68.31** points contract
 Walls to feature wall 79 - 39 = **40** points contract



By viewing a black and white image of the adjacent colour scheme the tonal differences of the colours becomes apparent critical surfaces are clearly visible.