

LIGHT REFLECTIVE VALUE (LRV)

The Equality Act 2010 (which replaced the 2004 Disability Discrimination Act) requires that all new and refurbished public buildings and work places comply with current regulations via their 'Access Statement', ensuring safe entry, exit and safe passage throughout the building. Obligations regarding building access and usage are covered under BS8300 / Building Regulations Approved Document "M". Failure to comply with the Equality Act could result in building owners and facility managers being fined up to £50,000.

How does it affect finishes?

The regulations mean that people, regardless of disability, age or gender, must be able to gain equal access to public buildings. For visually impaired people this means amongst other things that there must be a good visual contrast between various elements of the building, including doorways, fixtures and fittings. Therefore the contrast between for example doors and walls must achieve a certain level – measured by something called Light Reflectance Value (LRV).

What is Light Reflectance Value?

- LRV is a universal value for 'contrast'
- It measures the proportion of useful light reflected by a coloured object
- It represents a relative light and darkness value rather than an actual colour. Therefore dissimilar colours could have the same LRV
- LRV is measured on a scale of 0 to 100, 0 being perfect absorbing black and 100 being perfect reflecting white (in reality you never find these perfect objects - a bright white would typically have a result of an LRV of 85)

Why do we need Contrast?

Most registered blind people will still have some vision in colour. Only a small percentage (less than 5%) can see nothing at all, and even people within this group will generally have some sensitivity to light and shade.

Ensuring that a minimum of 30 points of LRV difference is specified for adjacent surfaces will in the majority of cases help to ensure that visually impaired people are not discriminated against.

Examples where visual contrast will be required: -

- Door faces and/or frames to walls
- Floors to Walls
- Ceilings to Walls
- Handrails to Walls
- Sanitary fittings to Walls

An example of a scheme that would now meet the guidelines would be light coloured walls, black wall fittings and grey floor thus enabling anybody to easily differentiate between all aspects of the room.

What is the required Specification?

A minimum of 30 points of LRV difference must be specified for adjacent surfaces, according to the Building Regulations Approved Document "M", and whilst there is no resin flooring industry specific test method for determining the LRV of a resin flooring product, BS 8493:2008 +A1:2010 specifies the method of test to determine the LRV (Light Reflectance Value) of different surfaces of materials.

In the past, products have been tested to an American standard (as per the attached), and it should be remembered that other factors can affect the LRV such as gloss or incidence of light.

The table below gives RAL values which may be of assistance:

Name	LRV	Name	LRV	Name	LRV
RAL1001	48	RAL4001	18	RAL8001	19
RAL1004	42	RAL4005	19	RAL8004	14
RAL1005	35	RAL4007	6	RAL8016	7
RAL1013	72	RAL5000	10	RAL9001	77
RAL1014	60	RAL5002	7	RAL9010	86
RAL1018	65	RAL5003	6	RAL1003	46
RAL1020	30	RAL6002	11	RAL7004	30
RAL2001	18	RAL6005	7	RAL3020	15
RAL2004	24	RAL6011	21	RAL5017	11
RAL2008	30	RAL6018	28	RAL9003	85
RAL3000	13	RAL6021	32	RAL2012	25
RAL3005	6	RAL7000	27	RAL5023	16
RAL3011	8	RAL7012	14	RAL5024	29
RAL3014	28	RAL7016	8	RAL6034	39
RAL3018	19	RAL7035	59	RAL9016	87

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