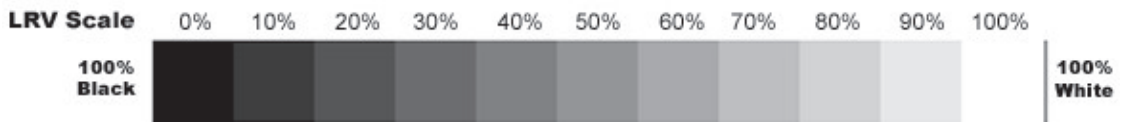

Fig 304.04(1): LRV Scale

The LRV of surface finishing materials are often stated by manufacturers on colour sample sheets or within material specification and data-sheets and in laboratory test results for individual products.

The LRV value is measured when the coating is applied to a test surface. The value does not change when applied to different surfaces.

The intent of this regulation is to use external finishes which reflect more light and heat. Increasing the LRV will increase the solar reflectivity. The LRV compliance should be complied and reported in the DM Building Glazing Schedule Wall table.

Manufacturers of external material/ finishes should specify LRV values on colour sample sheets or within material specification and data-sheets. These should be based on laboratory test results for individual products.

Case Study

An office building has external wall area of 8,560 m². The project team employs strategies to reduce the urban heat island effect and cooling demand of the building, installing aluminum composite panels with LRV > 45 and painting with high LRV paints. Table 304.04 (1) below lists the qualifying areas.

$$\text{Requirement} = \frac{\text{Area of elevation finished with LRV>45}}{\text{Total external wall area}} \geq 75\%$$

Table 304.04(1): Sample Qualifying Area

Description	Area (m²)
Total elevation area	8,560
Painted wall with LRV 60	3,720
Stone cladding with LRV 38	1,360
Aluminium cladding with LRV 49	2,900
Wooden finish with LRV 28	580
Total qualifying area (which have LRV above 45)	6,620
Total qualifying percentage	78%

Since the total qualifying percentage is more than 75%, the project is complying with this regulation.

Note: Area complying with this regulation can be computed in DM's Glazed Elements Schedule sheet.