TECHNICAL INFORMATION SHEET

Light Reflective Values (LRV) – Important information when choosing a colour

LRV indicates how much UV light a colour absorbs and is a measure of visible and usable light that is reflected from a surface when illuminated by a light source. The measurement is most commonly used by design professionals, such as architects.

The LRV of a colour is important to know when choosing a colour for the external façade of a building, particularly with a render finish, because the darker the colour the more a building will heat up externally. Therefore the background substrate to which the render system is being applied, needs to be capable of withstanding the additional heat build-up, otherwise the substrate and render finish could crack due to thermal expansion and contraction.

When using an insulated render system such as the Parextherm system, it is very important to know the colour chosen is suitable for the insulation used because the insulation substrate needs to be resilient to the heat build-up caused by dark colours. When the LRV falls to 25 or below, expanded polystyrene (EPS) should NOT be used. This is because the EPS insulation could deform or melt.

When the LRV is below 25, it is recommended that either extruded polystyrene insulation (XPS), wood fibre, mineral wool or phenolic insulations designed for external use should be used.

Render finishes are often available in a wide range of colours. For example acrylic (such as Parex DPR and Revlane) and ‘silicone’* finishes are often used for external finishes and are available in the same colours as paint finishes. This is because the technology is very similar. The colour scaling used to measure this is called the Light Reflective Scale and this references black at 0 and white at 100. *Silicone finishes are effectively acrylic finishes.

Mineral render finishes follow the same guidance but are generally not offered in strong dark colours as the heat build-up could cause the render itself to crack, regardless of the substrate.

This information is provided as guidance only and it is the individual’s responsibility to ensure that they and the client qualify that the colour chosen is suitable for the structure designed and built.

Refer to the Technical Information Guidance information
DPR & Do Silicone Really Work
Dark Colour Finishes on External Wall Insulation (EWI) Systems; PAREXTERM Acrylic and PAREXTERM Mineral render systems
UV Light - Parex 600 & 610 Clear Sealer

For additional information or other Technical Information Sheets, please visit our Web site link http://www.parex.co.uk/Render_Systems/Technical_Information_Sheets_and_FAQs
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