

Effects of Low E

The Appearance of Haze

Haze is an optical phenomenon which makes the glass look like it is covered in a very fine, uniform, layer of dust when viewed from an oblique angle or viewed under strong light incident on the glass at an oblique angle.

Low E can, under certain lighting conditions, display this phenomenon to a limited extent.

The reason for this is that the Low E coating is not as smooth as the glass surface. While this is not obvious to the eye when examining the glass, some people who regularly handle Low E can tell which side the coating is on by the feel of it.

The optical effect of the slightly rougher surface is to scatter a small proportion of the light incident on it (in exactly the same way a thin layer of dust would, which is why it looks similar). With Low E, the amount of scattered light is generally less than half of one percent of the light coming through the window, so under most viewing conditions it is not obvious. However, when incident sunlight is at an oblique angle and the view through the glass is of a shaded area, then the scattered light can become more visible, giving rise to the appearance of haze.

Most coated glasses are susceptible to the phenomenon of haze, to a greater or lesser extent. The amount of haze on Low E is limited as far as practicable.

Low E Tint

The benefits of reduced condensation and high thermal insulation obtained from using LOW E are due to the presence of a special transparent metallic type coating on one of the surfaces of the double glazing unit. This ultra-thin coating is transparent but has a very small effect on white light transmission.

Low E glass has high light transmission and often appears indistinguishable from clear float glass. For this reason it is recommended that the presence of the coating is confirmed by the use of a Low Emissivity Glass Detector after installation. However, the coating does have a pale straw coloured tint and when a light coloured object or material is viewed through the glazing, depending on local circumstances and conditions, occasionally a slight darkening effect may be seen.

Unfortunately, there is no way of overcoming this characteristic, although it does confirm the presence of Low E in the window.

