

Insulating Glass Units

Buying the Best

Exact standards of product and service are of paramount importance to Glass and Glazing Federation Members. They have a reputation for quality to maintain. All GGF Members are obliged to follow the GGF Code of Good Practice, which details the standards required from advertising and selling to the workmanship to materials and after-sales. Dealing with GGF Members gives customers peace of mind. Should there be any misunderstanding that cannot readily be resolved, the GGF offers a conciliation service. All deposits paid by customers are protected by insurance.

Sealed Units

Sealed units provide a high standard of vision. The following is a guide to the quality that can be expected.

The glass used in the manufacture of sealed units is similar to single glass and will, therefore, have a similar level of visual quality.

Viewing sealed units for scratches on the outer faces of the panes must be carried out before any rendering, plastering or other works adjacent to the glazing takes place, and as early as reasonably practicable following installation.

How to do a Professional Inspection

- Stand in the room no less than 2 metres away from the sealed unit and look directly through it.
- For toughened, laminated, or coated glasses, stand no less than 3 metres away.
- Where it is not possible to stand at the required distance, stand as far away as you can from the sealed unit.
- Do so in natural daylight, but not directly towards the sun and with no visible moisture on the surface of the glass.
- Exclude a 50mm wide band around the edge of the glass from the check.
- Glass must be viewed at an angle of 90 degrees.

What to Expect when Carrying Out an Inspection

Flat transparent glass, including laminated, toughened, or coated glass is acceptable if the following are neither obtrusive nor bunched:

- Bubbles or blisters
- Fine scratches, not more than 25mm long
- Minute particles

The obtrusiveness of blemishes is judged by looking through the glass, not at it, under natural light. Glass used in sealed units is processed glass, and consequently, blemishes are to be expected.

Sealed units with optical defects such as smears, fingerprints or other dirt on the cavity faces of the glass, or extraneous material in the cavity are unacceptable if they are visually disturbing.

Special Glasses

Toughened glass may show visual distortions which are accentuated by reflections in sealed units. This is a natural phenomenon and not a fault.

Laminated glass may have a few more blemishes as it is made of several layers.

Some low emissivity coatings may produce transient visual effects.

In some lighting conditions, the coating may look like a transparent film or produce a haze, i.e., a cloudy look to the surface.

When light coloured objects such as net curtains are placed close to the glazing, they may look slightly darker.

See GGF Leaflet: Low Emissivity Glass and its Visual Quality

Condensation

Whilst sealed units will reduce the incidence of condensation, they may still occur under certain conditions.

See GGF Leaflet: Condensation Some Causes, Some Advice

Brewster's Fringes the Rainbow Effect

Small transitory rainbow effects are sometimes produced by the glass refraction of light. Their appearance is due to high-quality flat glass sheets being placed parallel.

Multiple Reflections

This occurs in certain light conditions and is caused by multiple surface reflections within sealed units which may vary from pane to pane.

Patterned Glass

This document does not apply to patterned glass, as its manufacturing process is different.