THE GUILD OF GLASS POLISHERS

Standard of Visual Quality for the Repair of Installed Flat Glass

This document is freely offered to assist the glazing industry and end users alike to establish an acceptable visual standard for the repair of flat glass. Although originally written for the viewing of repaired glass, many users have found that these standards of visual quality far exceed any others in the industry as they perform equally well for the general inspection of installed flat glass.

Using the viewing criteria set out below, if a scratch, mark or blemish is visible to the naked eye it should be regarded as unacceptable. The unit should be repaired or replaced.

Single, double and triple glazed glass units should be viewed using the same viewing criteria;

Lighting – inspection should be made under natural daylight, avoiding any glare from direct sunlight as this could obscure your vision. Water or moisture on the glass will also impair visibility. When artificial light plays a part in the 'usual everyday' lighting conditions (wall, recess or up-lighting) this should be taken into account when inspecting the glass.

Glazed units, be they single, double or triple glazed, should be viewed from both sides of the glass (when feasible) at a distance of 1 meter back from the glass and from 3 angles – 45' from the left, 45' from the right and from a 90' angle from the centre of the unit. For glass that has been repaired, additional viewing criteria should be applied; standing 5 meters back from the unit being inspected and repeating the viewing angles above (where feasible) checking for hazing or cloudy patches, fining marks and or distortion.

When viewing glazed units that have been repaired, viewing should be centred on the area of the repair. Please Note – at a 45' angle you may notice natural distortions in the glass.

The area to be viewed is the normal vision area with the exception of a 5mm wide band around the perimeter of the unit. Any damage within this 5mm band, such a sandpaper scratches, may cause a risk of distortion when it comes to repair. If the glass can be deglazed, this risk can be removed but obviously, this greatly increases the cost of repair as reinstalling and redecoration will be required.

Totally enclosed seeds, bubbles or blisters, hairlines or minute embedded particles are occasionally found in flat glass. Although it has been standard practice to disregard such defects,

providing that they are neither obtrusive nor bunched together, in today's market, this is really an acceptance decision for the end user.

Double or triple glazed units with marks, smears, finger prints or scratches on any internal surface should be considered unacceptable.

Visible double reflection can occur under certain lighting aspects / conditions, especially when viewed from an angle. This is an optical phenomenon arising from multiple surface reflections in sealed units.

When viewed under certain light conditions, insulating glass units (double or triple glazed) incorporating clear or tinted flat laminated glass may show a distortion effect caused by reflection on the multiple surfaces of the components of the laminated glass.

Brewster's Fringes - are sometimes seen in glazed units in the form of straight bands of colour. This is due to reflection and refraction when two glasses of similar substance having flat and parallel surfaces are placed close together, such as a double or triple glazed unit. This is most likely to be noticed when looking at the glass obliquely from a bright exterior with the room side comparatively dark.

When a double glazing manufacturer constructs units from glass which are extremely flat and parallel, there is a risk of the phenomenon of Brewster's Fringes being present. This situation can apply to glass from any manufacturer in the world since it is a feature related to the physics of light. The presence of Brewster's Fringes is in no way detrimental to the performance of the unit, does not interfere with direct vision and is a reflection effect.

Patterned Glass – The above criteria does not apply to patterned glass as due to the method of manufacture, imperfection such as seeds and bubbles are deemed to be acceptable.

Repaired glass should present no sign of being repaired. Hazing or cloud remaining as a result of repair, swirling scratch or fining marks or distortions to the glass should not be acceptable in the repaired unit. On rare occasions, a risk of distortion may arise if scratch damage is deep or damage is within a 5mm band of the edge of the glass.
A suitably qualified glass polisher will be able to inform you of this before any repairs take place.

Advice: Any dispute relating to a standard of glazing is between the supplier and customer. Although you can seek expert advice and or mediation from a number of sources, remember that this is a third-party service, usually chargeable.

Although some organisations may lead you to believe differently, there is no official governing body for the glazing industry. Organisations offering guidance and advice, including ourselves, have no authority and cannot legislate or enforce anything.

The best advice we can give you is to include a standard for the visual quality for installed flat glass in your initial purchase, supply or installation agreement. In this way you have stipulated your required standards for the installed glass and had it agreed to by your supplier that will stand up in a court of law.

For further information relating to our standard of visual quality for the repaired flat glass, or any other service offered by The Guild of Glass Polishers, please visit our website: www.guildofglasspolishers.co.uk