

Lead-free toughened enameled glass

Meeting Your Aesthetics Needs

Description

AJJ Lead-free toughened enameled glass is an opaque coloured glass, produced by uniformly enameling one side of the glass. The new enamels used do not contain any dangerous heavy metals (in particular: lead, cadmium, mercury or chromium VI). The enamel is fired at a very high temperature, in order to fuse permanently with the glass surface, giving the product exceptional durability.

AJJ Lead-free toughened enameled glass is a toughened safety glass manufactured in accordance with standard BS EN



* < 1000 ppm in the content of the paint

Applications

* **External façade cladding**

Used in insulated spandrels or cladding panels in non-vision areas for an aesthetically clean appearance. Uniform facades or contrasting features can be created, with the added reflective quality of glass.

* **Internal cladding**

AJJ Lead-free toughened enameled glass provides exceptional resistance to humidity and is often used to clad internal wall areas, such as laboratories, where hygiene and durability are important.

Advantages

* **More environmentally friendly**

The enamel is free from lead and other dangerous metals making it more environmentally friendly and totally recyclable. During manufacture, the almost total absence of pollutants protects nature and health.

* **Coloured facades**

AJJ Lead-free toughened enameled glass is available in a wide range of colours. Additional decorative effects can be obtained by enameling different base glasses and/or designing specific colours.

* **Exceptional durability and safety**

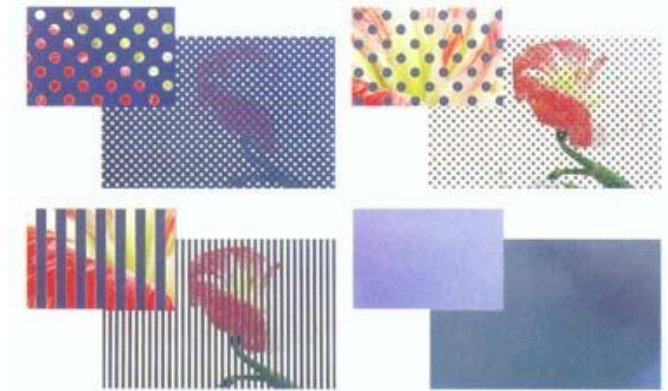
AJJ Lead-free toughened enameled glass is a toughened safety glass with the mechanical properties and durability inherent to clear toughened glass. In both facades and interior applications, the colours remain totally stable over time.

Simple installation

AJJ Lead-free toughened enameled glass is as easy to install as ordinary toughened glass.

Range

- ☞ AJJ Lead-free toughened enameled glass: for uniformly colored spandrel panels, combined with the natural radiance of glass
- ☞ AJJ Lead-free toughened enameled extra-low iron glass: for true pure white, by enamelled extra clear glass
- ☞ AJJ Lead-free toughened enameled patterned glass coloured and textured glass, using AJJ patterned



Standard colour range

AJJ Lead-free toughened enameled glass available in a range of 25 standard colours. In addition to the standard range of colours, bespoke colours and colour-matching services are available, enabling most colours to be replicated.

Please contact [AJJ GLASS](#) with your enquiry.

Manufacturing sizes

Thickness (mm)	6,8,10
Maximum dimensions (mm)	3600 ×2080

Manufacturing tolerances

Deflection tolerance	3mm /3m
Tolerance on sizes	+0.3mm
Max length/width ratio	1 /10
Minimum dimensions (mm)	500×300

Manufacturing tolerance: refer to standard BS EN12150

Larger dimensions are available. Please contact [AJJ GLASS](#) for further information.

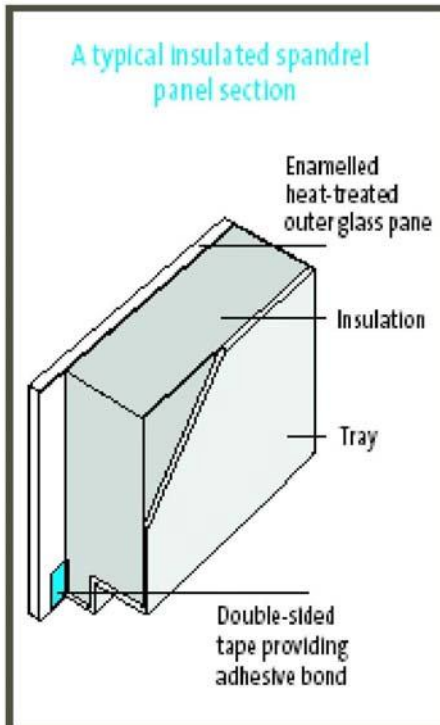
Please note

- ☞ The thickness of the glass can affect the final colour of the product.
- ☞ For uniformly coloured surfaces on facades, a single thickness should be used throughout a project.
- ☞ A colour difference of E =1.5 (C.I.E a*b*) measured on the surface of the glass is acceptable between 2 panes with the same colour enamel.

Processed product variations

Insulated Spandrel Panels

Insulation can be added to both single and double-glazed spandrel panels to improve thermal performance. The insulation is applied as foil backed foam or as mineral fibre in an aluminium tray bonded to the rear, painted surface of the single glass or double-glazed unit. Both the tray and spandrel are retained within the glazing rebate. In the case of foil backed foam, an aluminium channel is bonded to the glass perimeter to form a standard 24mm glazing width. Both the glass and aluminium channel are retained in the glazing rebate.



Two type of insulation are available as standard:

- * CFC-free foam
- * Mineral fibre

The standard thickness of insulation and their minimum corresponding centre-pane U-values are as follows:

CFC-free foam	35 mm	50 mm	75 mm
Mineral fibre	50 mm	75 mm	10 mm
Centre pane U-value (w/m ² k)	0.30	0.44	0.30

These values apply to both single and double-glazed spandrel panels. For special applications, it may be possible to design insulation to meet the requirements of the project. Due to thermal conduction through aluminium trays, the overall U-value may be higher than the centre pane value quoted.

Internal finishes to insulated spandrel panels

Standard insulated spandrels with no treatment to the rear surface of the tray (mill-finish) are for use only where the internal surface will not be visible

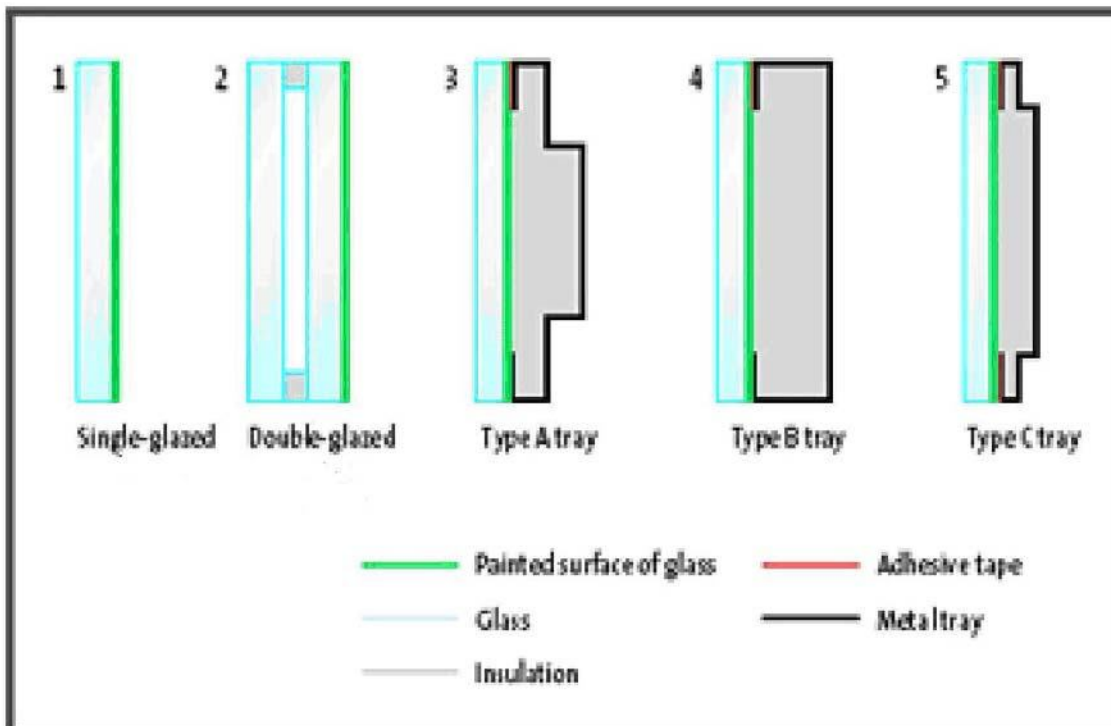
Where the rear surface of the tray is to be visible and where appearance is not of major importance, various powder-coated finishes are available.

Tray types and edge details

Various tray type may be specified for use in single or double-glazed spandrel panels.

All types are bonded to the painted surface of AJJ Lead-free toughened enameled glass

Processed product variations.../...



Double-glazed units

National regulations permitting, AJJ Lead-free toughened enameled glass can be incorporated in double-glazed units for façade applications. The enamel coating must be on face 4.

This type of double glazing must be designed specifically for this particular application (depth of seal, loading width of cavity etc).

Laminated glass

When required in laminated form, the enamelled face must be located on the outside of the assembly.

Curved glass

Please contact our technical department.

Edgeworking, notches, holes

See AJJ safety glass.



Installation Guidelines

AJJ Lead-free toughened enameled glass must always be installed in accordance with current national regulations.

- * Mechanical fixings: AJJ Lead-free toughened enameled glass can be channel glazed, adhesively glazed or screw-fixed. Glass-to-glass and glass-to-metal contact must be avoided. There must be a minimum clearance of 3 mm between two adjacent panes.
- * Adhesively glazed : AJJ Lead-free toughened enameled glass can also be installed in exterior structural

For adhesive glazing, ensure that the sealant is not visible. For certain applications, high opacity enamelling is available on request (please contact [AJJ GLASS](#)).

To check the compatibility of the adhesive with the enamel, please contact [AJJ GLASS](#)

In the interest of preserving its original appearance, AJJ Lead-free toughened enameled glass should not be installed with the enameled face towards the outside.

In facades, Heat-Soak test treatment is always recommended, in accordance with standard BS EN 14179.

This treatment is not necessary if the heat-strengthened version of AJJ Lead-free toughened enameled glass is used.

AJJ Lead-free toughened enameled glass is designed for use with a back-up wall and is not intended for viewing the enameled surface from an internal aspect.

With pale colours it is advisable to place a uniformly light coloured backing behind the glass.

Maintenance

To maintain its appearance, AJJ Lead-free toughened enameled glass must be regularly cleaned with neutral products that are free of harsh abrasive materials.

Standards and Regulations

AJJ Lead-free toughened enameled glass is a toughened safety glass conforming to standard BS EN 12150.

It can also be heat-strengthened, in accordance with standard BS EN 1863. AJJ Lead-free toughened enameled glass will receive marking when it is officially in force.

For more information, please visit our website: www.ajjglass.com

Or contact us: info@ajjglass.com, service@ajjglass.com

[Tel: 86 592 6270 639](tel:865926270639), [Fax: 86 592 8099 639](tel:865928099639)

[Company: AJJ Glass Ltd.](#)