

Fire Resistant Glass and Glazed Systems.

Fire-resistant glazing provides protection for lives and property in the event of fire.

The fire environment is a particularly hazardous one for all types of materials, and as such is impossibly predictable of any type of outcome.

It is critical therefore that the specification, selection and installation of any fire resistant glazing system is carried out with detailed accuracy and attention to detail.

Fire resistant glass only achieves and meets its designated performance when it is part of a complete system package. This means every component part – the glazing seal (intumescent), beads, fixings and the frame material (density, section size etc), must all be in accordance and compatible with the manufacturers tested specifications. It is always critical to ensure that this is checked thoroughly with the supplier covering relevant appropriate fire resistant performance certification.

It should not be assumed that component substitution will result in the same performance. And likewise never mix/match elements from differing systems. And never be tempted to take short cuts!

Function

Fire resistant glazing may be used as a barrier for fire separation or compartmentation as part of an integrated fire strategy. Both Integrity Only and Integrity with Insulation performance ranges are available and widely used. Products span the standard range of test times of 15, 30, 60, 90, 120 and even 180 minutes, (even up to 240 in Marine applications). These are according to BS 476-22, BS EN 1364-1 or BS EN 1634-1, as well as special types to resist the higher intensity petrochemical fire test.

Glass Types

There are three classifications covering fire glass performance, these are as follows: -

Integrity (E)

“The ability of a specimen of a separating element to contain a fire to specified criteria for collapse, freedom from holes, cracks and fissures and sustained flaming on the unexposed face.”

Typically described as: -

- 30/0 – 30 minutes Integrity zero Insulation (E30 – E60)
- 60/0 – 60 minutes Integrity zero Insulation

Integrity/Radiation Control/Partial Insulation (EW)

In addition to integrity as detailed above ‘the ability to reduce the radiated heat level by a measurable amount/the ability to provide insulation for a part of that set time’

Typically can be described as: -

- 30/15 – 30 minutes Integrity/15 minutes Insulation
- 60/30 – 60 minutes Integrity/30 minutes Insulation
- 30/<15kW/m – 30 minutes Integrity/15 minutes low radiation level.

Integrity/Full Insulation (EI)

In addition to integrity as ‘the ability of the specimen to restrict the surface measured heat rise to an average of 140C for a set period of time’.

- 30/30 – 30 minutes Integrity + 30 minutes Insulation
- 60/60 – 120/120 etc.

Pyroguard



Bending to suit your needs

Fire Resistant Glass
from the specialists

Novaglaze Gardner & Newton Limited

Novaglaze Gardner & Newton Ltd

Queens Mill Road, Huddersfield, West Yorkshire, HD1 3PG. UK

www.glassbending.co.uk email:- sales@n-gn.co.uk

tel:- +44 (0) 1484 517010 fax:- +44 (0) 1484 517050



Novaglaze Gardner & Newton Ltd

Here at Novaglaze Gardner & Newton Ltd we aim to bring a solution to all clients' fire glazing requirements.

Our range of products are widely used in many demanding applications including fire rated partitions, fire rated screens and doors but to name a few.

We offer a choice of supply, be it small quantity stock sheet supply, (1 to 5 sheets), or cut size. Focusing on the door industry, specialist joinery companies, shop fitters, contractors, glaziers and merchants.

Glass can be supplied in a wide variety of types and combinations which include: -

Clear – Integrity and Radiation Control

3 and 5 ply clear/stockable laminated fire glass – 30 and 60 minute integrity rated to UK fire standard BS 476 - part 20, plus the added benefit of radiation control. Widely fire tested in mainland Europe and equivalent testing worldwide. These can also be supplied to special order as coloured/etched/sandblasted and patterned. Along with this the ability to add 'decorative lead flashing to the glass face.

Messrs. Gardner and Newton started bending glass in 1836. In 2006, after 170 years in the industry, the company joined forces with another leading curved glass manufacturer, Novaglaze, and relocated to their 46,000 sq ft factory in Huddersfield.

Both Novaglaze's and Gardner & Newton's sustained growth over the years can be attributed to quality; of workmanship, service and

We at NGN really do BEND TO SUIT YOUR NEEDS as the customer, offering a total customer care package second to none in the industry today.

GWPP – Integrity

A traditional embedded Georgian wired polished glass that may easily be cut from stock sheets. Fire tested to up to 90 minutes integrity.

Insulated

A wide range (to order) of fully insulated glasses – as cut sizes.

- Acoustic/Insulated Fire rated glass to 120/120 – to order – as cut size.
- Glazing materials and ceramic tapes
- Toughened fire rated glass to size.
- Double glazed options are available to order

With over 150 years of experience in the glass industry NGN are at the forefront of glass technology and supply a wide range of customers from glass merchants through to royal palaces and stately homes, the London Eye and many others.

NGN are an 'in-house' manufacturer of both flat and curved glass in annealed, laminated and toughened variants and glass splashbacks. We also offer finishes such as sandblasting, silvering, screen and digital printing on glass (artwork can be supplied in a range of workable formats such as: - ai, pdf and jpegs).

In addition our Pyroguard range can be offered as clear, leaded, DGU's, coloured, patterned, etched or sandblasted, logo's, digitally imaged.

The options are almost only limited by your imagination and the ability to withstand the rigorous testing requirements. It is no longer the case where you could only buy a wired glass – we can now extend the design scope of architects and specifiers thus enhancing their creative flair.

Client focus is our ethos.

History

the speed of response. These are factors which mean that more and more clients rely upon Novaglaze Gardner & Newton for their requirements.

The company recently commissioned a new state-of-the-art bending and toughening furnace which can produce glass 3.2m wide and 5.5m high.

Such investment, along with CNC glass processing machines, water-jet cutting machine, additional straight line edgers and glass washing machines help to ensure orders are completed to the highest standards with the shortest possible lead times.