



**SMYTH
COMPOSITES**

Limited



**IMPACT
RESISTANT
GLAZING**

FYBAGLAZE RANGE

In an age where constant mindless vandalism is a harsh reality, FYBAGLAZE can provide a solution – without compromise, that can negate the need for constant replacement of glass and the crippling costs associated with ongoing maintenance and call outs.

STRENGTH

FYBAGLAZE products are possibly the toughest glazing materials available. Panels are virtually unbreakable and have a high resistance to impact, shock and wind loading, whilst maintaining an aesthetic appearance.



VANDAL RESISTANT

Can withstand blows from hammers, bricks, boots and general sustained manual attack.

SHATTER RESISTANT

Panels will not break and fragment giving rise to risk of cuts and injury.

IMPACT RESISTANT

Tested to BS5544 steel ball drop test and regulation 14 compliant.

GRAFFITI RESISTANT

Graffiti can be cleaned from the surface of panels using proprietary cleaners or solvents without degrading or permanently “smudging” the product in any way.

UV RESISTANT

Fybaglaze products are manufactured with resins containing U.V. stabilisers. The application of a U.V. resistant coating can further enhance the long term appearance against significant ultra-violet degradation.

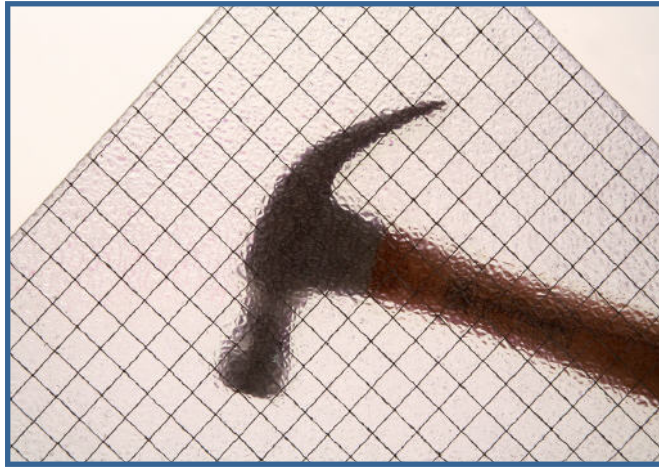
APPLICATIONS INCLUDE:

- Balcony Panels
- Factory Rooflights
- Vacant Property
- Bus Shelters
- Stairwell Glazing
- Schools
- Security Screens
- Fire Doors
- Power Stations
- Swimming Pools



FYBAGARD

Translucent GRP glazing panels resembling Georgian wired cast or plate glass. **FYBAGARD** has a welded wire mesh encapsulated within the laminates of fibreglass. Installations include balcony panels, stairwell glazing and rooflight applications



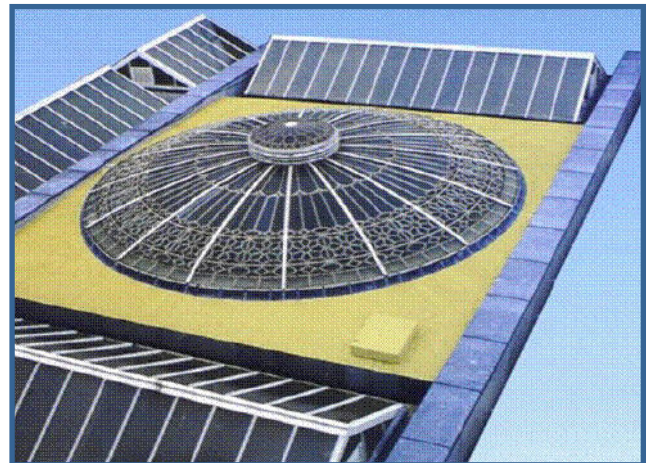
FYBALYTE

has exactly the same properties as FYBAGARD but without the welded wire mesh. Used in applications which require light transmission whilst providing security and privacy.



FYBAMESH

Steel mesh reinforced GRP glazing which is an incredibly tough anti vandal sheet product providing an excellent physical and visual deterrent to vandals. Used mainly for boarding up of vacant local authority property, bus shelters and security screens. Also available



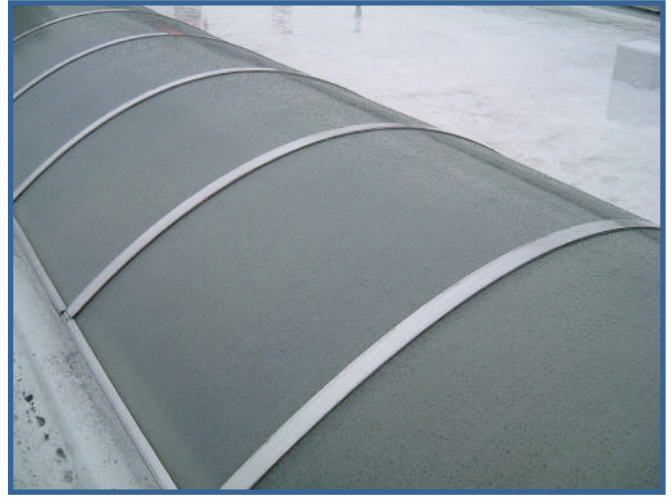
FYBAGARD glazing installed at Waverley Station Edinburgh.

VERSATILE

Because Smyth Composites actually manufacture **FYBAGLAZE** products, panels can be supplied as either stock sheets, or “made to size”, allowing specifiers significant savings by not having to incur waste and cost in the form of offcuts.

All products can be manufactured in variety of thicknesses, fire ratings (if required) and a choice of surface textures.

Panels can be pre-shaped to for ease of installation in barrel vault applications.



SURFACE PROTECTION

In the past GRP had a tendency to yellow and lose translucency after prolonged exposure to sunlight, rain and extremes of temperature.

Smyth Composites have addressed this problem, and in 1998 introduced a clear polyester membrane which can be heat bonded to all **FYBAGLAZE** products to provide:

- High resistance to UV degradation and yellowing.
- Easy graffiti removal without permanent smudging or damage.
- Easy to clean.
- Greater strength retention.
- Available in embossed or smooth.



HANDLING AND INSTALLATION

FYBAGLAZE can be easily installed without risk of breaking or fragmenting. Compared with glass, **FYBAGLAZE** is up to 200 times stronger yet approximately half the weight enabling ease of installation particularly on above ground applications.

Panels can be easily, cut, drilled and installed using conventional tools or can be successfully glazed in a similar fashion to glass using standard polyurethane or silicone mastics, which will have no adverse reaction with the panels.



TINTS

All translucent **Fybaglaze** products can be manufactured with a variety of Tints, thus providing a wider option where aesthetic considerations apply.

TECHNICAL SPECIFICATION

Impact Resistant Glazing Products

Fire Resistant

Products can be manufactured to either:

1. General purpose (GP) grade
2. BS 476 Part 7 Class 1
3. BS 476 Part 6 Class '0'
4. BS 476 Part 7 Class 2

FACT : Unlike other 'Plastic' glazing products GRP will not drip, melt or soften in the event of a fire.

Fyregard

FYREGARD has the same appearance as our **F Y B A G A R D** product, but is manufactured using quality fire retardant resins enabling it to meet BS-476 part 22 (1/2 hour fire rating).

Light Transmission

Up to 83% depending on thickness and surface texture

FACT : The inclusion of a UV resistant surface coating will significantly prolong light transmission.

Flexural Strength

170 MPa

FACT : Will not bow and flex as much as other glazing plastics.

Tensile Strength

100 MPa

FACT : Seven times stronger than mild steel on a weight for weight basis.

Tensile Modulus

8 GPa

Thermal Conductivity

0.2 W/m²K

FACT : Significantly lower than glass.

Thermal Co-Efficient Of Expansion

$30 \times 10^{-6} / \text{DEG C}$

FACT : Compared with many other plastics GRP has minimal expansion and contraction characteristics.

Impact Resistance

To BS5544 (cert no 395-1) and regulation 14 compliant.

FACT : Steel Ball drop test conclude no penetration or breakage of GRP glazing.

Sheet Dimensions

FYBAGARD, FYBALYTE - Standard stock sheet size is 8 x 4 (1220 x 2440), but due to the fact all panels are manufactured to customer requirements, virtually any length can be accommodated, with a width restriction of 1525mm.

FYBAMESH

8Lx4W (1220x2440)

10Lx4W (1220x3050)

5Lx 10W (1524x3050) or any derivative within these sizes. All sizes are nominal.

Sheet Thickness

Standard product range can be manufactured to literally any thickness with 3mm, 4mm, & 6mm being standard.

Cutting and Handling

FYBAGARD, FYBALYTE -

Jig Saw, Bench Saw, (using diamond tipped blade), Guillotine.

FYBAMESH - Guillotine Abrasive Disc, Jig Saw (using metal cutting blades).

Cut in well ventilated area using gloves, eye protection and dust particle masks.

**FYBAGLAZE PRODUCTS ARE
MANUFACTURED BY**



**PANMURE INDUSTRIAL ESTATE
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**OTHER PRODUCTS MANUFACTURED
BY SMYTH COMPOSITES INCLUDE:**

FYBATEX

Solid colour GRP flat sheets.

FYBACORE

GRP composite insulated infill panels.

PHENCLAD

Fibre reinforced phenolic sheet with high fire resistance and low smoke emission.

SPECIALIST SHEET PRODUCTS

GRP flat sheet suitable for a range of engineering and chemical resistance application.

ANTI-SLIP PRODUCTS

Wide range of GRP non-slip solutions. Gritted plate, GRP Stair Treads, Chequer Plate.