GENERAL DATA SHEET

Architectural Armour Series - AA0001

Panel Sizes

Two standard panel sizes are available: 2m x 1m and 8ft x 4ft (2440 x 1220mm)
Other sizes can be manufactured on request and panels can be supplied cut to customers' specifications.

Tolerances

Weight	± 1 Kg/m²
Thickness	± 0.5mm
Width / Length	± 2mm
Flatness	maximum gap, 1.5mm when laid on a flat surface

Quality Assurance

Strict quality control and full materials traceability is maintained during all parts of the manufacturing process. Samples of each batch of armour made are ballistically tested before final acceptance and all panels are identified with a unique serial number which is traceable back to all materials and process.

Multi-hit Capability

The armour will resist multiple impacts at a pitch greater than six times the projectile diameter for the qualification threat level.

Edge Stopping Potential

The armour will resist impacts at a distance greater than four times the projectile diameter from the edge of a panel for the qualification threat level.

Ricochet

One of the primary benefits of Architectural Armour is its ability to contain projectiles (as opposed to steel armour which can produce ricochet fragments bouncing back from the armour face and causing potential injury to bystanders).

At all but very shallow angles of attack (less than 25º to the surface), Architectural Armour will contain all bullet fragments. If total ricochet protection at all angles of attack is required then the addition of 20mm thick MDF or chipboard bonded to the face of the armour will ensure that even projectiles fired at very low angles of attack are contained.

Panel Joints

To maintain full protection at armour panel joints, either overlap the armour panels by 40 mm or use a butt strip of the same armour that overlaps 40mm onto each panel

Optimal Armour Limited - Registered in England No. 5754485
Unit G3, Dudley Central Trading Estate, Shaw Road, Dudley, West Midlands, DY2 8QX
Tel: 01384 242332 Fax: 0121 535 7128 email: sales@optimalarmour.co.uk www.optimalarmour.co.uk

Fire Classification

Self extinguishing, not easily ignitable. Further information available on request.

Working Instructions

SAFETY NOTICE: When undertaking any work on architectural armour, standard safety precautions should be employed which are suitable for working with fibrous / resinated materials.

As a minimum, safety glasses, respirators conforming to any class of BS EN 149 and barrier creams for exposed skin will help negate the effects of irritant particles associated with the machining of fiberglass composites.

1) Cutting – The material can be cut with most metal working tools, such as HSS hacksaw blades, 20TPI. For shaped work tungsten carbide coated jigsaw blades such as Bosh T130 RIFF are recommended. The best solution for long straight cuts is a water cooled rotary cutter fitted with a diamond wheel (such as used for cutting concrete).

2) Drilling – High Speed Steel twist drills produce perfectly acceptable results.

3) Dust Control – When drilling or cutting keep irritant dust down to a minimum by using vacuum extraction or damping down with water (although with electric power tools care must be exercised). Water cooling will control dust and keep the cutting tool cool thus increasing life. SEE SEPARATE COSHH DATA SHEET

4) Painting – Degrease the surface with thinners, lightly abrade then degrease again for best results. The surface is non-absorbent and will accept most paint types.

5) Bonding – Degrease the surface with thinners, lightly abrade then degrease again for best results. Most adhesive systems will adhere to the armour surface including contact adhesives, panel adhesive, sealants, etc. For the very best bond we recommend the use of a two part epoxy.

6) Wallpapers – Degrease the surface with thinners, lightly abrade then degrease again for best results. Use a heavy duty wallpaper adhesive made up to maximum strength.

Handling

Due to the fibrous nature of the material, gloves should be worn at all times as the edges may have sharp fibre protrusions.

Due care and attention should be paid to lifting and handling due to the size and weight of armour pieces

Storage

The material should be stored flat (either vertically or horizontally) to avoid bowing.

As the material is inherently environmentally stable, exposure to water or damp and / or temperature extremes (in the range -20ºC to +50ºC) will have no effect on the performance of the armour.

The material may be stored indefinitely (tests have shown no degradation after 10+ years of outdoor exposure)

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