

'Starboard' Anti-Ricochet Panels



MATERIALS SPECIFICATIONS

1. Features

- a. Fire-retardant, non-toxic, odorless and inherently durable
- b. A nonconductive polymer composite board with excellent cushioning, thermal insulating and acoustic/vibration dampening properties
- c. Structurally resilient with high resistant to impacts
- d. Starboard is waterproof, fungus resistant and non-corrosive

2. Specifications:

a. ASTM D2395-83 (Density)	853 kg/m ³
b. ASTM D3029-90 (Impact Strength)	5.5 mm/kg
c. ASTM D638-91 (Tensile Strength)	min. 7.0 MPa
d. ASTM D790-91 (Flexural Strength)	min. 25.0 MPa
e. BS 476 Pt.7-97 (Surface Flame Spread)	Class 3
f. FMVSS 302 (Flammability)	0.15 in/min
g. UL 94 (Flammability)	HB
h. ASTM D4442-92 (Moisture Content)	0.35%
i. ASTM D570-81 (Water Absorption)	1.9%
j. ASTM D1037-91 (Compression Rating)	30.7 MPa
k. ASTM C518-84 (Thermal Resistance)	0.244 m ² K/W
l. ASTM E90-90 (Sound Transmission Loss)	56.5 dB
m. ASTM D2990 (Creep Modulus)	3.8 MPa/cm
n. ASTM D2990 (Load Deflection)	1.42 x 10 ⁻² of Span

STARBURST SPECS. NO: SE-AR01

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'Starboard' anti-ricochet panels are manufactured in North America to exacting standards and have been tested for their anti-ricochet properties. The panels can be easily fitted to any new or existing indoor or outdoor shooting range, to provide a neat, easily cleaned and safe surface for floors, walls or ceilings meeting both acoustic and anti-ricochet requirements.

The panels are manufactured from environmentally safe and fully recyclable cellulose plastic material and have a flat even surface. The material is not affected by water and sunlight and the surface can be cleaned easily by sweeping/vacuuming or by washing.

Panel Size	:	1220mm x 2440mm x 18mm (25mm & 28mm)
Weight	:	16 kg/m ² (853 kg/m ³)
Colour	:	Off White, grey, light tan, hunter green or black

Fitting the panels to walls, floors and ceilings is by simple screw fixings through the panels, thus large areas can be covered in a short span of time. It is recommended that the anti-ricochet panels be fitted such that there is an air gap of at least 25mm to 50mm between the rear of the panels and the wall, floor or ceiling. Concealed suspended ceiling systems are available to allow ducts or pipe work to run above the anti-ricochet surface.

When used as anti-ricochet flooring the panels can be used in its original surface finish or alternatively coated with resinous polyurethane compounds, providing a seamless surface. The polyurethane membrane surface coating is hard wearing, easily repaired, offers excellent grip and resistance to damage and can be cleaned or washed. The polyurethane finish is available in a wide variety of colours.

'Starboard' anti-ricochet panels have been subjected to extensive testing for their anti-ricochet properties and found to comply with Range Safety Regulations.

'Starboard' AR panels have been designed, tested in accordance with international standards and proven to prevent ricochets from bullets or shards involving a wide variety of combinations of weapons, calibres and substrates. These include: -

Weapons	:	Pistol, revolver, carbine, SMG, rifle
Calibres	:	.38, .357, .45, 9mm, 5.56, 7.62
Substrates	:	Block, concrete, brick, mild steel, armoured steel

Dependent on the nature of the ammunition and the substrate used, the panels can absorb up to 4,000 rounds per m² without catastrophic degradation of the AR protection system.

THE PERFORMANCE OF ANTI-RICOCHET MATERIALS AND SURFACES IS DEPENDENT UPON THE OVERALL DESIGN, DETAILING AND INSTALLATION OF THE SYSTEM AS A WHOLE. IT IS RECOMMENDED THAT ALL ANTI-RICOCHET SYSTEMS BE DESIGNED AND INSTALLED BY SPECIALISTS.