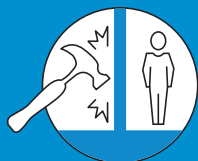
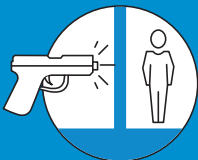


THE DEFINITIVE GUIDE TO CHOOSING HIGH-SECURITY GLASS SOLUTIONS.

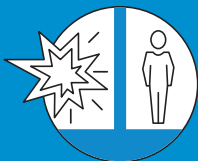
Looking for the right high-security glass?
You have come to the right place!



VETROGARD
ATTACK



VETROGARD
BULLET



VETROGARD
BLAST

In today's world, there is an increasing need for high-security glass solutions designed to protect you from threats – vandalism, burglary, bullets, explosives and more. Vetrotech Saint-Gobain has a customised solution for each safety need. Stringent tests are conducted on the glass, keeping in mind the extreme conditions it will be subjected to. Choose the high-security glass that best suits your needs.



VETROGARD ATTACK

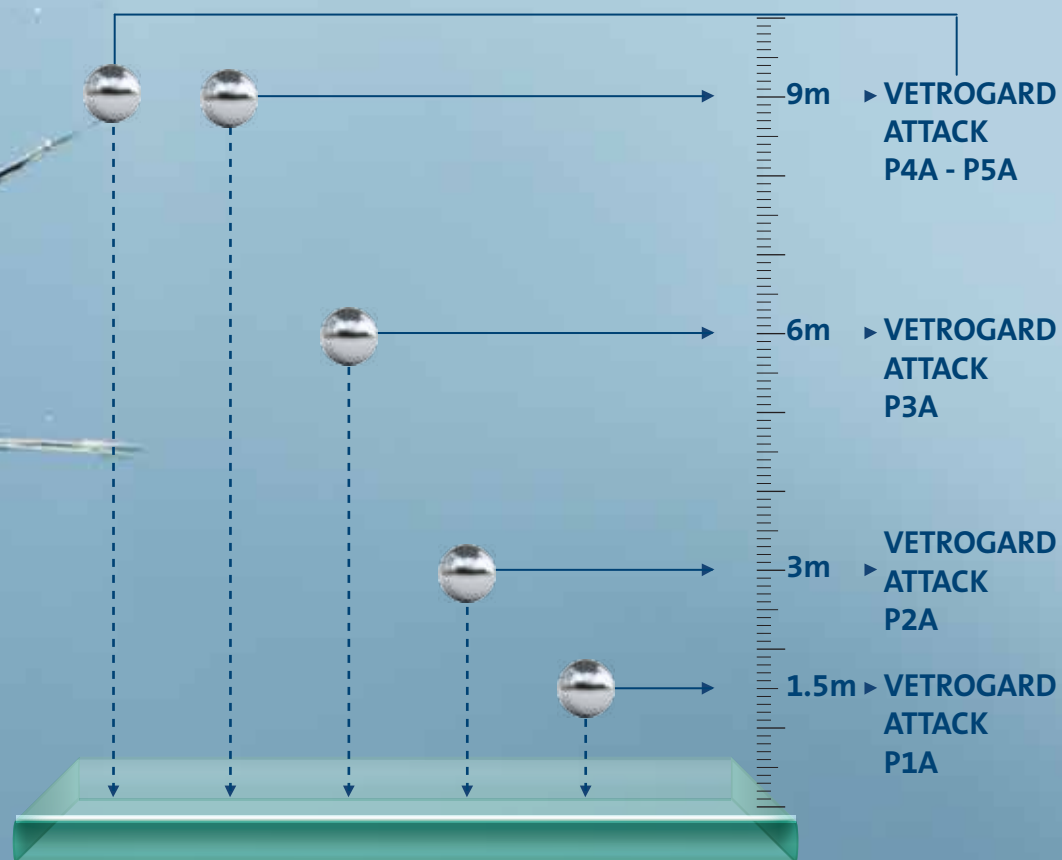
Provides protection from vandals trying to destroy property using rocks, stones and projectiles.

THE BALL-DROP TEST

A 4.1kg steel ball of 100mm diameter is dropped on the glass. The glass must not allow the steel ball to penetrate through it.

WHY

To verify whether the glass can withstand high-impact from heavy objects that can shatter it, as per international norms.



*When tested as per EN 356 (A)



VETROGARD ATTACK

Provides protection from intruders trying to break in using axes and hammers.

THE AXE TEST

- An axe is used to make a square opening of 400mm X 400mm on the glass.
- The number of hits required to make this opening is counted.

WHY

To verify whether the glass can withstand high-impact from sharp objects that can shatter it, as per international norms.

NO. OF AXE HITS THE GLASS CAN WITHSTAND

P6B



x 50 hits

P7B



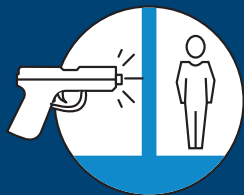
x 70 hits

P8B



x 70+ hits

*When tested as per EN 356 (B)



VETROGARD BULLET

Provides protection from the bullets fired from handguns and rifles.

THE AMMUNITION TEST

- 3 bullets are shot at the glass from a distance of 5m (for handguns) & 10m (for rifles).
- There must be no perforation of the glass by the bullet.

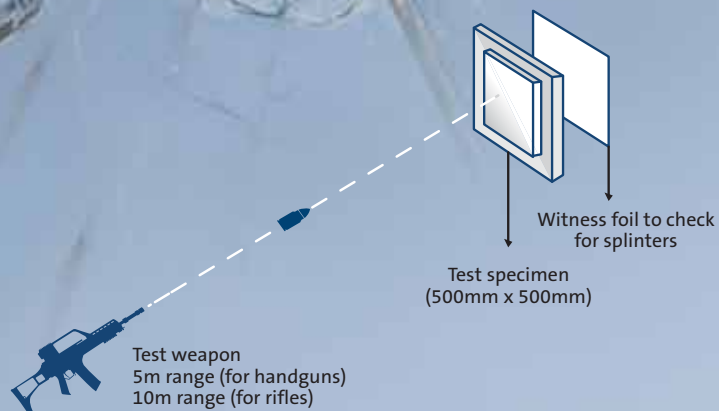
WHY

To verify whether the glass can withstand high-impact from bullets without shattering or perforating it, as per international norms.

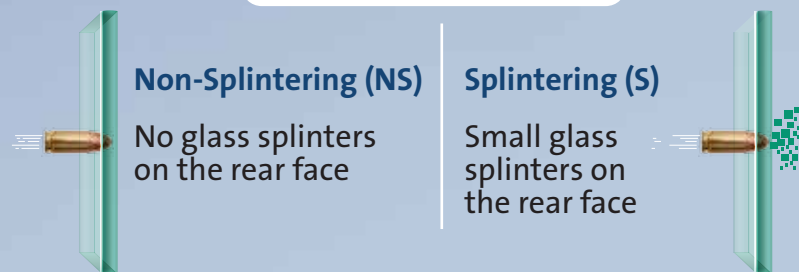


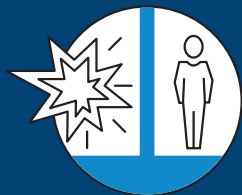
Level of Protection	BR 1	BR 2	BR 3	BR 4	BR 5	BR 6	BR 7
Type of Ammunition	0.22mm LR	9mm LR	0.357 Magnum	0.44 Magnum	5.56 X 45mm	7.62mm X 51mm (soft core)	7.62mm X 51mm (hard core)

***When tested as per EN 1063**



Available in two variants





VETROGARD BLAST



Provides protection from the shockwaves and flying projectiles resulting from an explosion.

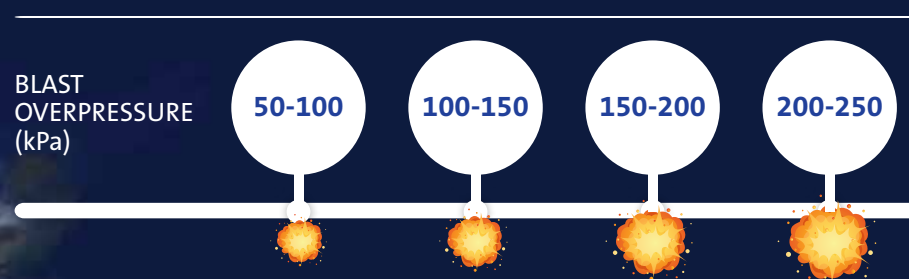
THE SHOCK TUBE TEST

The glass is subjected to blast overpressure in this test. At the end of the test, there should not be any 'see-through' opening on the glass.

WHY

To verify whether the glass can absorb the shockwaves from explosions without shattering, as per international norms.

LEVEL OF PROTECTION



*When tested as per EN 13541

Available in two variants

Non-Splintering (NS)

No glass splinters on the rear face



Splintering (S)

Small glass splinters on the rear face





MADE IN INDIA. MADE FOR THE WORLD.

Vetrogard range of high-security glass is manufactured at the 'World Glass Complex' of Saint-Gobain in Chennai, India. The state-of-the-art production facility is audited by different 3rd party certification bodies.

