

LIGHTWEIGHT BULLET RESISTANT TRANSPARENT LAMINATE

SECULAM BR 1

Allplast's SecuLam BR1 is a lightweight, all-polymer transparent laminate, designed to offer protection according to standard EN1063 level BR1 (No Spall). SecuLam BR1 can withstand multiple impacts by a .22 LR bullet, without any fragmentation on the inside of the product. This makes it a safe product for a wide range of applications. Additionally, the all-polymer composition makes sure that see-through capability is maintained after impact.

Being the lightest bullet-resistant product in our range, SecuLam BR1 is perfectly suitable for eye- and face protection and other applications where weight and thickness are significant issues. SecuLam BR1 can also serve as a basis for any custom-designed fragment resistant product, like EOD and mine disposal gear.

SECULAM BR 2

Allplast's SecuLam BR2 is designed to withstand multiple impacts by the commonly used 9 x 19 mm Parabellum bullet, according to standard EN1063 level BR2 (No Spall). This bullet is used in a wide range of hand guns and submachine guns.

SecuLam BR2 is a lightweight, all-polymer transparent laminate which makes it suitable for a wide range of applications like bullet resistant visors, shields and glazing.

The all-polymer composition makes sure that see-through capability is maintained after impact and that fragmentation on the inside does not occur. It is a good alternative to glass-laminates, which do not offer the same see-through capabilities after impact. To increase usability, this full polymer laminate contains a scratch resistant coating on the outsides.

SECULAM BR 3

Allplast's SecuLam BR3 offers protection according to standard EN1063 level Br3 (No Spall). This means that it can withstand the heavy .357 Magnum bullet. Being an all-polymer laminate, SecuLam BR3 is a lightweight, thin, multi-hit resistant product which does not allow spalling on impact. The all-polymer composition makes sure that see-through capability is maintained after impact.

SecuLam BR3's excellent no-spalling qualities make it suitable for highly protective face shields, vehicle glazing and building glazing. The product has a two-sided anti-scratch coating.

SECULAM BR 4

Allplast's SecuLam BR4/SG2 is currently the ultimate full-polymer transparent laminate we have to offer. Being one of the lightest laminates in its class, this product offers protection against some of the heaviest handgun threats known today. SecuLam BR4/SG2 has been successfully tested against multiple impacts with both the powerful .44 Magnum round and the extremely heavy "Brenneke" shotgun slug.

Being an all-polymer laminate, SecuLam BR4/SG2 is lightweight, thin, multi hit resistant and does not create spall on impact. A high level of see-through capability is maintained after impact.

Developed to deal with the heaviest handgun threats, Allplast's SecuLam BR4/SG2 is perfectly suited for applications in vehicle glazing, building glazing and personal protection products like entry shields.



LIGHTWEIGHT TRANSPARENT ARMOUR

SECULAM AK

The infamous AK-47 Kalashnikov assault rifle is still widely used throughout the world and is considered a realistic threat in many military and even civilian applications. Allplast has developed a unique laminate that will defeat this common threat. Our SecuLam Aklaminate was designed to cope with the 7.62 x 39 MSC rifle bullet and was subsequently tested according to EN1063.



This "special" product is a versatile, lightweight product which is suitable for a wide range of applications. A high multi-hit performance is achieved by using an effective combination of polymers and glass. Like all of our bullet resistant laminates, SecuLam AK has a spall layer, which prevents the fragmentation occurring on the back side of the panel during impact.

SECULAM BR 6

The 7.62 x 51 NATO Ball bullet is a very common rifle bullet used in a variety of firearms. Allplast's SecuLam BR6 offers protection against this bullet according to EN1063 BR6 NS. Its glass/polymer composition made it possible to achieve a high ballistic performance together with a very low weight and thickness.

As with all SecuLam bullet resistant laminates in the EN1063 range a multi-hit capacity of at least 3 shots has been proven. Special layers limit the frontal damage during impact, while spall layers at the back prevent the ejection of any spall on the rear side of the laminate.

SecuLam BR6 is suitable for a wide variety of both military and civilian applications where rifle threats can be expected. Examples are: vehicles, embassies and guard posts.



SECULAM BR 7

The EN1063 BR7 NS protection level requires that the very powerful 7.62 x 51 NATO Armour Piercing round is defeated. This bullet has an extremely hard core, giving it even more penetration power than the standard NATO Ball-bullet. Armour piercing bullets like this one are often encountered on the military battlefield.

Allplast's SecuLam BR7 laminate is capable of dealing with multiple hits from this bullet. For this armour piercing threat, Allplast developed a unique combination of materials, making our BR7-laminate one of the lightest ones available today. Allplast has developed two variants, both of which have passed the EN1063 standard. The heavier composition will be recommended by us when an even higher multi-hit performance is desired.

SecuLam BR7 can be applied wherever there is a need for extremely high antirearm protection. Examples are: military and civilian vehicles, embassies and guard posts.



TECHNICAL SPECIFICATION

	Protection level	Ammunition type	Composition	Thickness	Specific weight	Options
BR 1	EN1063 BR1 NS	.22	Full-polymer + interlayers	14 mm	16 Kg/m	2D-forming, tinting, coating
BR 2	EN1063 BR2 NS	9 x 19 mm Luger "parabellum"	Full-polymer + interlayers	20 mm	24 Kg/m	2D-forming, tinting, coating
BR 3	EN1063 BR3 NS	.357 Magnum	Full-polymer + interlayers	30 mm	33 Kg/m	2D-forming, tinting, coating
BR 4	EN1063 BR4 and SG2 NS	.44 Magnum & Brenneke shotgun slug	Full-polymer + interlayers	32 mm	38 Kg/m	2D-forming, tinting, coating
BR 5/AK	EN1063 AK NS "SPECIAL"	7.62 x 39 Mild Steel Core	Glass/polymers + interlayers	36 mm	66 Kg/m	Tinting, coating
BR 6	EN1063 BR6 NS	7.62 x 51 NATO Bal	Glass/polymers + interlayers	43 mm	83 Kg/m	Tinting, coating
BR 7	EN1063 BR7 NS	7.62 x 51 NATO Armour Piercing	Glass/polymers + interlayers	84 - 92 mm	170 - 181 Kg/m	Tinting, coating