

# Armored Laminates

IMUNEX GmbH

# What are Armored Laminates?

Description



They are transparent selfadhesive safety laminates made of plastic for indoor installation on all types of glass, featuring particularly high resistance against penetration that can withstand large impacts and provide protection for safety purposes.

# Description

Roll dimension:	1.5 m >
Weight:	700 g/s
Thickness:	0.4 mn
Color:	Clear t
Transparent clarity:	97 %
UV rejection:	99 %
Total Solar Transmission:	87 %
Effectiveness:	After 3

1.5 m x 30 m 700 g/sqm  $\simeq$  40 kg 0.4 mm at retail spec Clear transparent 97 % 99 % 87 % After 30 - 45 days of installation

# What Armored Laminates do

They make window glass bulletproof to provide protection against bullets, explosions and breakage with common burglary tools.





In addition, the laminates prevent window glass shards from shattering and flying during natural disasters such as hurricanes and earthquakes as they keep glass splinters held together in the event of glass breakage and thus minimize the risk of injury as well. What Armored Laminates do?



# **Against smashing**

Glass thickness:

5 mm and above

Film Layers needed:

1-3

More layers mean more protection



# Against handgun ballistic

Level NIJ level 2A, 2 and 3A

Glass Thickness:

8 mm+ film layer x1 + 8 mm+ film layer x2

For building glass:

For car glass:

The glass must be 8mm + 8mm. In this case you save lots of laminates.

We use 5 mm glass + 15 layers of laminates/6mm thickness of laminates

# How to install the Armored Laminates?



## **STEP ONE**

Measure and cut the film without any excess.

## **STEP TWO**

Clean and wet the glass thoroughly.



# How to install the - Armored Laminates?



## **STEP THREE**

Remove backing and wet the sticky side of the film.

## **STEP FOUR**

Place the wet surface of the film on the glass.



# How to install the Armored Laminates?



## **STEP FIVE**

Squeegee to remove the water and the bubbles.

## **STEP SIX**

Make sure to leave 0.5 - 1 mm gap.



# Important Information

Armored Laminates are installed on glass in the interior side of the building, and any material adhered to the inside surface of the glass must be removed in order to properly install the laminates.

There should be a small gap (0.5 - 1 mm) along the edge when installing Armored Laminates. The reason for this is that at warm temperatures the film can expand.

#### Notice:

For the purpose to provide protection against explosions, the laminates should be installed deep inside the frame without any gaps.

The laminates will be installed on the visible surface of the glass, do not need to dismantle the frame. But the glasses require a frame to hold the glass, It will be weakened if install on glasses without a frame.



#### **Curing Period:**

Normally, under room temperature, it requires at least 30 - 45 days for total dry-up.



# *How to clean the glass after the installation?*

After installation, any kind of cleaning job is not to be allowed for 21 to 30 days during the "Curing Period".

Normal solutions for cleaning such as alcohol detergents can be used. Ammonium detergent is not allowed for use, to avoid possible scratches.

 $\rightarrow$ 

Water that has been used for outside cleaning of a window cannot be used for the inside, always use fresh water to clean the inside.



Soft items such as sponges can be used for cleaning, however, a brush is not allowed to be used.



It's important to start the cleaning from upper parts to down.

## What make Armored Laminates unique?



Bullet is stopped from the outside of the glass

## **ONE SIDE PENETRATION**

Armored Laminates has the ability to block the bullets from outside only, while bullets can penetrate from inside.



#### **THINNEST & LIGHTEST**

Armored laminates can make your glass the thinnest and the lightest bulletproof glass worldwide.



#### **FIRE RESISTANT**

They are fire resistant, as they reduce the ignition speed, and can save valuable time in case of fire in large buildings which may take a long time to evacuate. The glass cannot be penetrated from the outside, but it can be broken from the inside, so it will provide an emergency escape route.



### **REDUCE INJURIES**

During man-made or natural disasters like hurricanes and earthquakes, glass shards flying off play an important role in human injury and death. By keeping glass shards held together, our laminates minimize the risk of injury.

# What Armored Laminates features?



The armored laminates have passed the test that was held by the Ministry of defense with ZERO penetration.

They are certified as bulletproof laminates for protection and security purposes.





# Armored Polymer Shield



IMUNEX GmbH

# Description

Dimension: 1.2 m x 1.5 m /pc Weight: 3 kg / m2 Thickness: 3-4mm Color: Yellowish White Material Property: Application: Bullet / Explosion Protection: Features:

High Tensile Polymer Car door / Building door Light / Flexible - bendable

## **Protection Ballistic Level**

1 Layer: NIJ IIA, II, IIIA

## Armored Polymer Shield



Not just the windows' glass we can protect, but the exterior doors of your home, business, and your whole car's body as well.

When a bullet strikes the Armored Polymer Shield, it is caught in a "Web" of very strong fibers.

These fibers absorb and disperse the impact energy that is transmitted to the bulletproof shield from the bullet, causing the bullet to deform or "Mushroom".



## Keep your vehicle protected

Not just we protect your vehicle's glass with our **Armored Laminates**.

But also your vehicle's body with our bulletproof and explosion resistance **Armored Polymer Shield** sheets.



# Very simple way to install



Keep your vehicle protected with our developed easyto-install door panel inserts of **Armored Polymer Shield** sheet that can armor any vehicle against ballistic attacks.

- No need to modify your vehicle. No screw, no bracket, cut and weld.
- We have the world's Lightest Bulletproof Door panel.
- Our material can customize to any vehicle shape.



All doors with Armored Polymer Cut whole piece to door contour

## What we do?

FACTORS	ARMORED LAMINATES	COMPETITORS
THICKNESS	10 mm	25 mm
WEIGHT	80 Kg for one car	500 Kg for one car
WINDOW FULL FUNCTION	Yes	No – Dead window
ABILITY TO RETURN FIRE	Yes – shoot out from inside	No – both sides are blocked
CURVED WINDSHIELD	Makes the original 18 mm bulletproof	The original must be replaced with bulletproof one

## What we believe in?

### SAFETY ISN'T EXPENSIVE, IT'S PRICELESS

Many people, worry about their security, given rising numbers of burglary.

Many people think the bulletproof glass is something only for wealthy people.

But all people deserve security and protection

Therefore, we provide our laminates at low cost

## Our vision







Create a prominent distributors network

Work together in good harmony

Bring to every door security & protection

Thank you

We look forward to work hand in hand with you in the near future

### **SDT Group International AB**

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