



## INFRASTRUCTURE

TRAVEL CENTRES · NOISE BARRIERS · BUS SHELTERS · PEDESTRIAN TUNNELS  
BRIDGES · ROOFING · PROTECTIVE SHIELDS · WALL COPING · BALUSTRADES · MEDIA

## PROPERTY

WINDOWS & DOORS · BALLISTIC PROTECTION · EXPLOSION PROTECTION · ROOFING  
BALUSTRADES · SECURITY FURNISHINGS · ELECTRONICS PROTECTION · MIRRORS

## AUTOMOTIVE

SAFETY SCREENS · EXPLOSION TESTED SCREENS · SACRIFICIAL SCREENS  
SACRIFICIAL FILM · HEAT REDUCING SCREENS · BULLET PROOF SCREENS  
EMERGENCY VEHICLES



*Hammerglass® is a nano technology coated polycarbonate sheet, 300 times stronger than glass and virtually unbreakable. The extremely hard, smooth surface makes it easy to remove graffiti and also helps to prevent pollutants from exhaust fumes, oil and asphalt from adhering to Hammerglass® as easily as to ordinary glass. The surface treatment also provides 99.96% UV protection, which means that the material will not cloud, discolour or undergo any other change in optical quality over time. Hammerglass® does not contribute to the spreading of flames in the event of fire.*



Information · Design · Tender  
Contact Hammerglass AB directly



**COLOUR & LIGHT  
FOR SAFER ENVIRONMENT**  
PEDESTRIAN TUNNELS, BRIDGES & BALUSTRADES





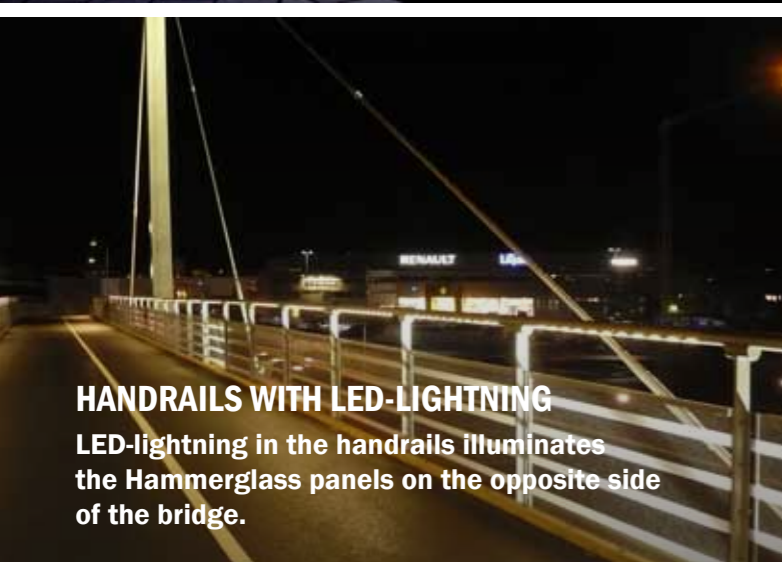
### ILLUMINATION FOR SAFER ENVIRONMENT

Illuminated Hammerglass panels in a previously dark and unsafe pedestrian subway. Hammerglass Opal 12 mm with print and LED lighting in varying colours.



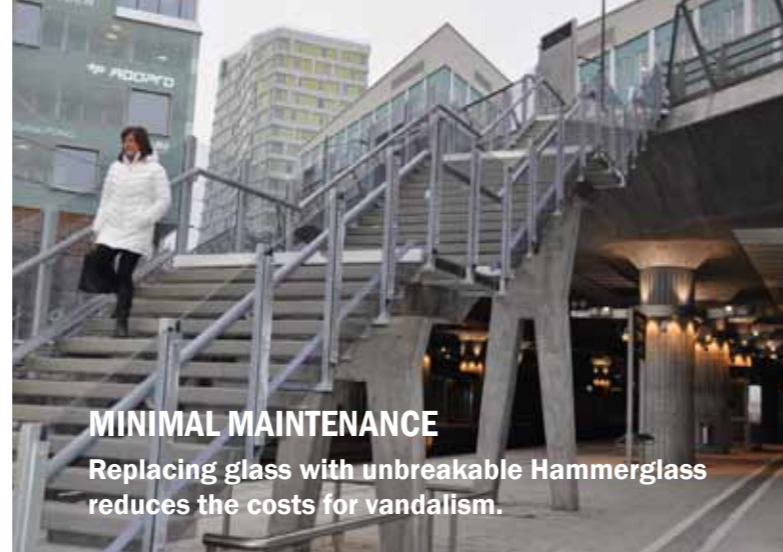
### PHOTOS ILLUMINATED FROM BEHIND

The tunnel wall is covered with black and white photos of old times.



### HANDRAILS WITH LED-LIGHTNING

LED-lightning in the handrails illuminates the Hammerglass panels on the opposite side of the bridge.



### MINIMAL MAINTENANCE

Replacing glass with unbreakable Hammerglass reduces the costs for vandalism.



### BALUSTRADE WITH LAMINATED PHOTO

The photo is protected against vandalism and UV radiation between two Hammerglass panels.



### GLAZING ON THE GROUND

The strength of Hammerglass allows glazing to take place on ground, after which each section of the finished construction is lifted in place.



### BLUE SHIMMERING PEDESTRIAN BRIDGE

Hammerglass panels screen printed with blue rasterized dots. The rasterized pattern in combination with LED-lightning makes the bridge turn blue at night.

# COLOUR & LIGHT FOR SAFER ENVIRONMENT

Illuminated pedestrian subways do not only offer a safer environment - just as balustrades and falling protection on bridges, they can be functional as well as visually appealing. Given the wide choice of fixing methods available for the installation of Hammerglass panels, tunnels and bridges can be much more than simply transit routes.

### GLAZING MATERIAL & FITTING SYSTEM

Hammerglass is available as clear, opal or coloured panels up to 6 metres in length. Measurements are taken once the steel structure is in place, in order to provide an optimum fit for the Hammerglass panels. The Hammerglass panels are flexible and can be shaped to fit into bent profiles. Fixing may be carried out with the aid of clamping profiles, Fixpoints, project-specific fixing solutions or in existing constructions. We specially adapt the design of posts and fixings in order to guarantee secure installation of unbreakable, splinter-free glazing solutions.

- 300 times stronger than glass - No glass breakage
- Half the glass weight
- Clear view of the surroundings
- Simple graffiti removal
- Ready-made solutions for fixing and installation

### MINIMAL MAINTENANCE

The use of nanotechnology helps to prevent pollutants from exhaust fumes, oil and asphalt from adhering to Hammerglass as easily as they do to ordinary glass. Most known detergents and chemicals can be used to clean up graffiti, marker tags or other soiling without the Hammerglass panels being damaged.

### PRINTS, COLOUR & LED-LIGHTNING

The Hammerglass panels can be coloured or printed. Photos can be laminated between two Hammerglass panels, to be protected against vandalism and the sun's UV radiation. A printed or colour-impregnated Hammerglass panel with LED-illumination forms an attractive focal point of light in the night darkness. With LED which vary in colour the effect can be further enhanced.

### FALLING PROTECTION FOR BRIDGES

Flexible systems for all imaginable bridge solutions for roads and railways, as well pedestrian and cycle bridges. The strength of Hammerglass allows glazing to take place on ground, after which the entire finished construction is lifted in place. The screen may be inclined at any desired angle, based on individual requirements relating to noise reflection, light reflection and snow accumulation. Water run-off may occur in towards the bridge or down below the barrier.

### PEDESTRIAN TUNNELS

An illuminated pedestrian subway offers a safer environment and enhanced security. The Hammerglass panels can be printed and provided with LED-lightning. The print is protected on the back side of the Hammerglass panel, towards the tunnel wall.

### BALUSTRADES

Multifunctional balustrade solutions which provide a transparent and attractive barrier for effective wind and noise protection. Our systems are installed as safety barriers around bus terminals and arenas, as falling protection on stands and walls and as balustrades for stairs and balconies.

### ADVICE DURING CONSTRUCTION

Bring us into the dialogue already at the idea stage. Our engineers can assist with design suggestions, drawings and proposals for functional solutions. We are happy to tender on complete projects: Hammerglass cut to measure, posts, mounting systems and installation.

### DRAFT REGULATORY TEXT

*"The panels shall be made from 12 mm chemically resistant (withstand acetone) hard-coated and at least 99.96% UV resistant polycarbonate, type Hammerglass."*