Hammerglass®
INFRASTRUCTURE

# UNBREAKABLE.

## UNBREAKABLE GLASS SOLUTIONS
## FOR SAFE AND VANDAL-PROOF PUBLIC SPACES

NOISE REDUCTION • WEATHER PROTECTION • TRAVEL CENTRES • ROOFING • PEDESTRIAN TUNNELS

# YOU CAN CHALLENGE OUR IDEAS AS WELL AS OUR PRODUCTS.

## UNBREAKABLE. FROM DRAWING BOARD TO INSTALLATION.

Hammerglass offers complete systems involving customised glass solutions and fixings for newbuilds, as well as glass replacement with unbreakable panels. Actually, it is only imagination that sets the limits of what we can do. Our own in-house construction department enables us to create cutting edge solutions for our clients. Feel free to challenge us!

### TESTED AND CERTIFIED PRODUCTS WITH WARRANTIES

Hammerglass® is a durable polycarbonate sheet, 300 times stronger than glass – and virtually unbreakable.

Hammerglass® cannot be compared to standard polycarbonate (PC). The surface coating is resistant to most chemicals and provides 99.96% UV protection which prevents Hammerglass panes from clouding or becoming discoloured over time.

Hammerglass® does not contribute to the spreading of flames in the event of fire.

### ADVANTAGES WITH HAMMERGLASS

- 300 times stronger than glass - No glass breakage
- Half the weight of regular glass
- Clear view of the surroundings
- Minimal maintenance - Simple graffiti removal
- Higher gloss index than regular glass helps to ensure that dirt and dust can be washed off by the rain
- Ready-made solutions for fixing and installation
- Estimated service life >40 years
- Hammerglass® can be recycled
- Hammerglass® supplies tested and certified products with warranties

*All illustrations in the brochure are taken from our own projects and are described in reference presentations at hammerglass.com*


# HAVE A SAFE JOURNEY.

Permanent unbreakable glazing solutions for travel centres. The low weight and the hard surface of Hammerglass makes it an excellent choice for walls, ceilings, elevators etc. Clear or coloured Hammerglass sheets up to 6 metres in length offer customers and architects considerable freedom in project design and construction of wall structures, roofs and weather protection solutions.

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# TRAVEL CENTRE - ROSENGÅRD

# A SURE RECIPE FOR NOISE REDUCTION.

Traditional Hammerglass screens with highly-absorbent acoustic boards in Hammerfoam. It is a sure recipe for noise reduction. The work undertaken by Hammerglass at Rosengård station is the result of the combination of quality materials and professional designers. The installation, which is being carried out in-house, involves just over 400 metres of complete weather protection: Steel structures, roof and noise barrier with noise absorbent and decorative plates. The Rosengård project is a clear demonstration of Hammerglass' credentials as a solution provider for cost-effective and long-term, durable installations.

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# A LONG-TERM NOISE CONTROL MEASURE.

CE-marked noise barriers for road, bridge and railway. The durability of the panels and flexibility of the material make Hammerglass a popular choice for undertaking both complete projects and glass replacement jobs. Apart from the material being unbreakable, the nanotechnology of the surface coating helps to ensure that contaminants from exhaust fumes, oil and asphalt do not adhere as easily as on ordinary glass. The estimated service life is more than 40 years. A long-term noise control measure.

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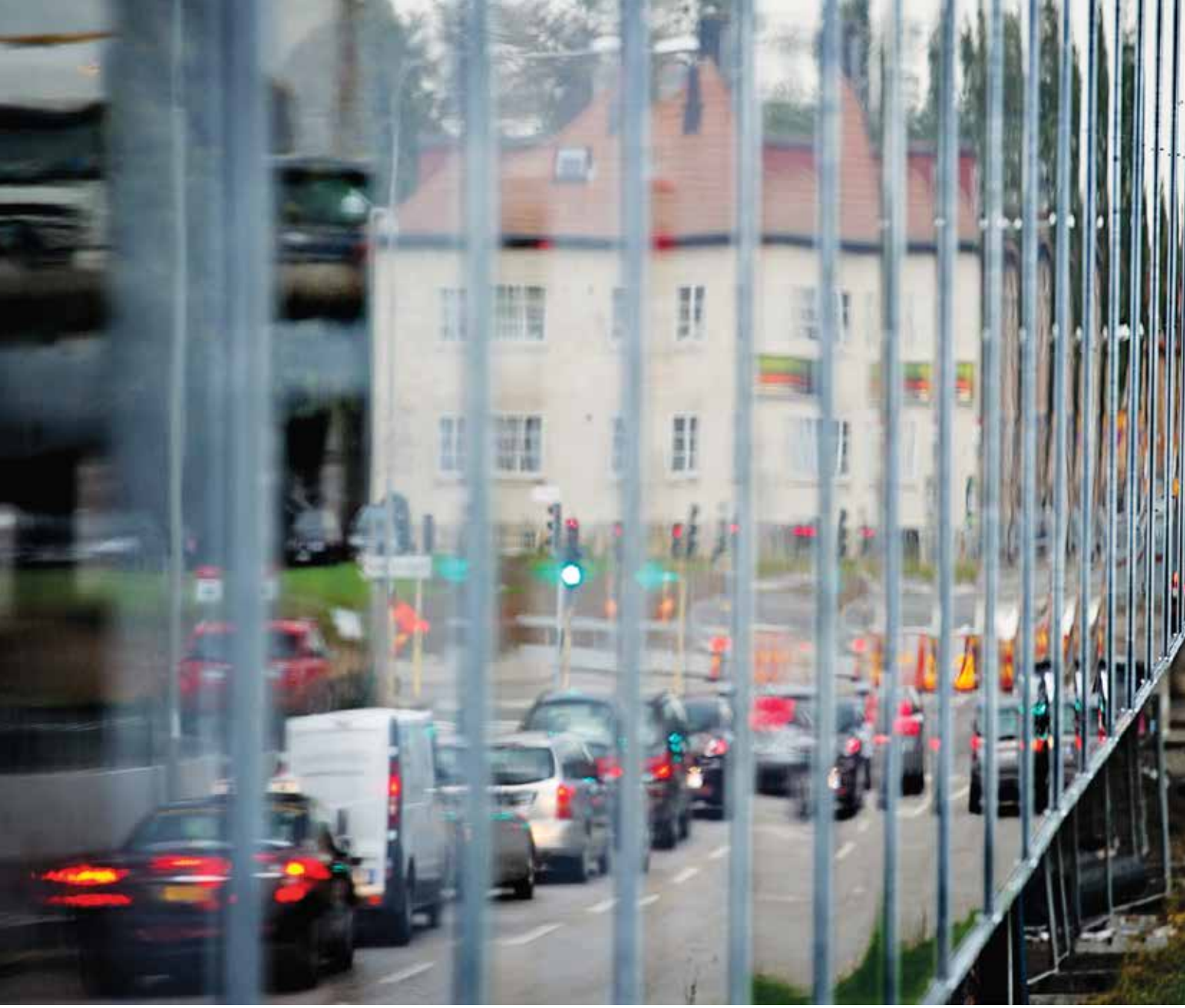

# QUIET URBAN ENVIRONMENTS.

The need for effective noise protection extends beyond motorways and railway lines. Hammerglass specially adapted fixing systems and posts help to create the right conditions for pleasant urban environments which are easy on both the ear and the eye. To complement Hammerglass transparent glass solutions, noise control can be enhanced by using Hammerfoam - Hammerglass' highly efficient noise absorbent.

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# A 12 MM LIFE-SAVER.

Around high-voltage- and overhead contact lines the risk of electrical accidents is always imminent. In collaboration with the Swedish Transport Administration, Hammerglass has produced a modern, electrical protective roof structure to cover overhead contact lines as a replacement for the old sheet-metal protective covers. The electrical protective shield is strength-calculated to allow for snow- and wind load and for the wind load from passing trains. The design blends in with the surroundings, and at the same time it forms a solid barrier against live conductors.

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Försäljningsställen
SMS kodes Upplägert


# HARD ON HOOLIGANS.

Broken bus shelters are an all-too-common sight along our roads. Vandalism costs companies and communities enormous sums of money every year. And it is all unnecessary. Using Hammerglass instead of toughened glass in bus shelters, the level of weather protection it offers can transform a hooligan haunt into a proper bus shelter. Customers who want to enhance the quality further can also use special profiles – and why not panels with printing or LED lighting?

PS. To read more on the savings potential of Hammerglass in bus shelters, see last-but-one page!

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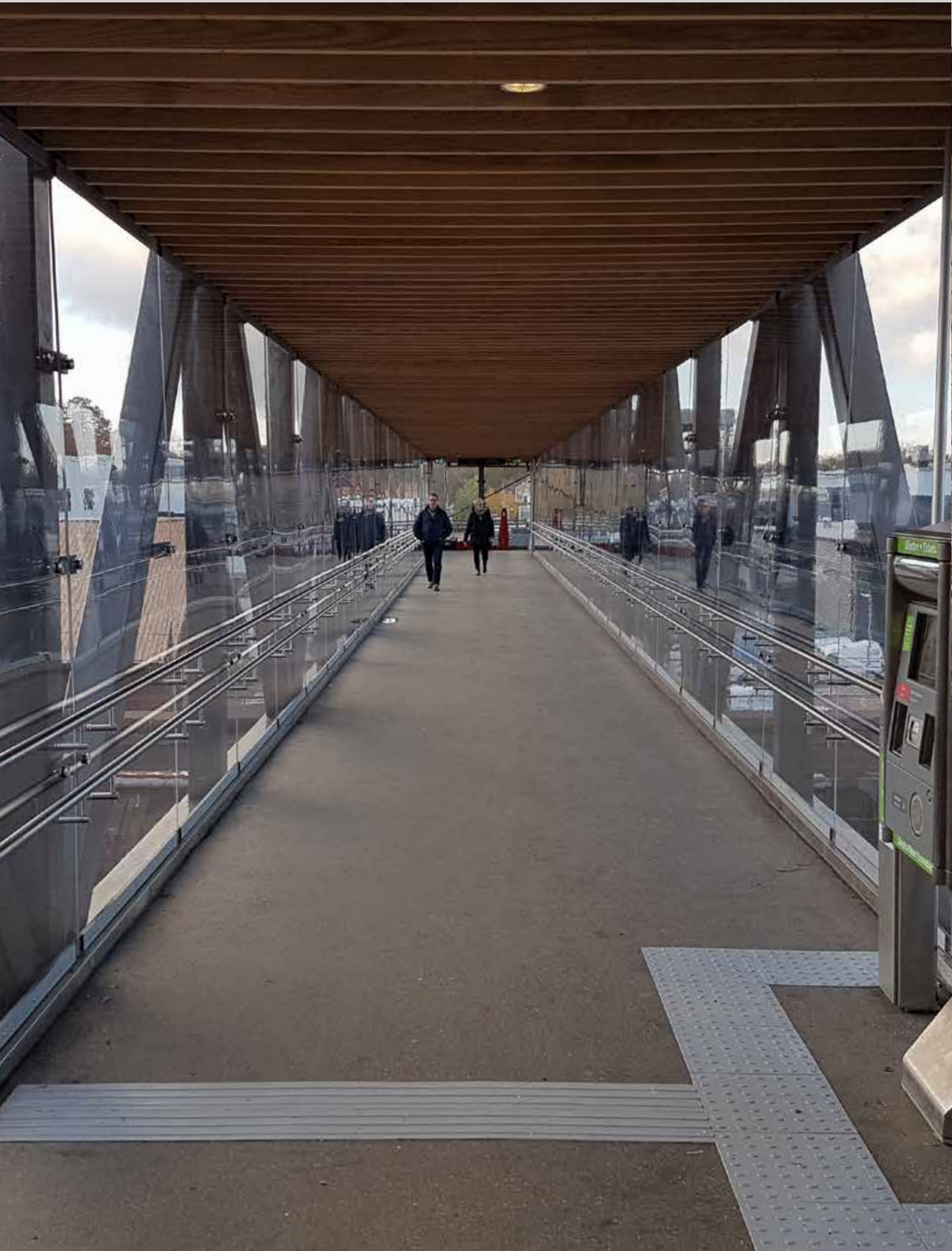

# SECURITY ON MULTIPLE LEVELS.

Illuminated pedestrian and cycle paths not only create a safer environment and increased security – they can also be aesthetically pleasing and contribute to people's enjoyment of an area. An opal, colour-impregnated or printed Hammerglass panel with LED-illumination provides an attractive focal point of light in the night darkness. When it comes to graffiti, marker tags or other soiling - most known detergents and chemicals can be used to clean up without the Hammerglass panels being damaged.

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# LEAVE YOUR MARK.

HAMMERART allows the Hammerglass panels to communicate with their surroundings. The panels can be printed with a variety of designs or messages. The technique employed allows four-colour printing, which offers endless possibilities for the creation of personalised motifs and printed designs. Why not have a photo, a municipal coat of arms or a graphic design put on the panels? If you need ideas, Hammerglass' design department will help you to produce a creation specifically suited to your needs.
Don't worry about the printing. It will be well protected against vandalism on the rear side of the panel.

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# TURNKEY SECURITY.

Bring us into the dialogue already at the idea stage. Our engineers can assist with design suggestions, 3D models, strength calculations and finished dwg drawings. For us, nothing is impossible, and we are accustomed to finding solutions in response to most requests. Please feel free to challenge us!

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# REFERENCES

If you want to know more about the reference objects in the brochure, you can find more information about location and product selection below. If you want to know even more, visit hammerglass.com.

***Page 2:***

*Noise reduction screen, Stockholm, Sweden.*

*System: Ground-2, Bridge-2, Hammerglass 12 mm.*

*Height: 2 - 3.5 m.*
*Total length: 1.5 km.*


***Page 3:***

*Travel Centre, Sweden.*

*System: Hammerglass 12 mm.*

*Roof structures, walls, elevators, balustrades and pedestrian bridge.*

***Page 4:***

*Travel Centre, Älmhult, Sweden.*

*System: Hammerglass 15 mm, Hammerglass Fixpoints.*

*Roof structures, walls, elevators, balustrades and pedestrian bridge.*


***Page 5:***

*Bus terminal roof, Stockholm, Sweden.*

*System: Hammerglass 12 mm, Hammerglass Opal 12 mm.*

*100 m long translucent roof, balustrades, sliding doors.*

***Page 6:***

*Railway station, Malmö, Sweden.*

*System: Hammerglass 12 mm, Hammerfoam noise absorbent.*

*Complete weather protection: Steel constructions, roof, and noise reduction screen.*

*Total length: 400 m.*


***Page 7:***

*Railway station, Malmö, Sweden.*

*System: Hammerglass 12 mm, Hammerfoam noise absorbent.*

*Complete weather protection: Steel constructions, roof, and noise reduction screen.*

*Total length: 400 m.*

***Page 8:***

*Noise reduction screen, Roslagsbanan railway, Sweden.*

*System: Ground-2, Bridge-2, Bridge-3, Hammerglass 15 mm.*


***Page 9:***

*Noise reduction screen, Kalmar, Sweden.*

*System: Ground-2 on wall, Hammerglass 12 mm.*

*Printed LEAF-pattern to prevent bird collisions.*

*Height: 2 - 5 m.*
*Length: 750 m.*

***Page 10:***

*Noise reduction screen, Skövde, Sweden.*

*System: Ground-2, Bridge-2, Hammerglass 12 mm.*

*Length: 900 m.*


***Page 11:***

*Noise reduction screen, Stockholm, Sweden.*

*System: Ground-2, Bridge-2, Hammerglass 12 mm.*

*Height: 2 - 3.5 m.*
*Total length: 1.5 km.*

***Page 12:***

*Electrical protective roof structure for railway.*

*System: Hammerglass 12 mm.*

*Strength calculated to allow for snow- and wind load, and wind load from trains.*


***Page 13:***

*Electrical protective roof structure for railway.*

*System: Hammerglass 12 mm.*

*Strength calculated to allow for snow- and wind load, and wind load from trains.*

***Page 14:***

*Train shelter, Tierp, Sweden.*

*System: Hammerglass 8 mm.*

*Unbreakable weather protection along railway tracks.*


***Page 15:***

*Bus shelters, Stockholm, Sweden.*

*System: Hammerglass 8 mm, Hammerglass 12 mm.*

*Replacement of glass in 20 bus shelters.*

***Page 16:***

*Travel Centre, Älmhult, Sweden.*

*System: Hammerglass 15 mm, Hammerglass Fixpoints.*

*Roof structures, walls, elevators, balustrades and pedestrian bridge.*


***Page 17:***

*Balustrade, Stockholm, Sweden.*

*System: Hammerglass 12 mm, HammerArt screen print.*

***Page 18:***

*Pedestrian tunnel, Malmö, Sweden.*

*System: Hammerglass 12 mm, HammerArt digital print, LED.*

*Length: 2 x 15 m.*


**Page 19:**

*Pedestrian tunnel, Malmö, Sweden.*

*System: Hammerglass 12 mm, HammerArt digital print, LED.*

*Length: 2 x 15 m.*

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# HARD ON HOOLIGANS


## ”UNBREAKABLE BUS SHELTERS SAVES US TENS OF THOUSANDS OF EUROS...”

For Andreas Mehlqvist, broken glass is just part of the daily scene. He is Bus Stop Manager in Stockholm, and responsible for over 4 000 individual bus stops.

Mr Mehlqvist has also been Project Manager for a pilot project involving a changeover to unbreakable Hammerglass in around 20 of the bus shelters around Stockholm.

– We selected those shelters that were most vulnerable and where we found we were replacing glass on an almost weekly basis. We reckon we have saved upward of 10.000 EUR a month on these 20 shelters alone - a really incredible figure.

Andreas Mehlqvist at Nobina:

– To begin with we were sceptical, as we were afraid that the panels would be defaced or kicked out, but the really strong mountings from Hammerglass have meant the panels have remained firmly in place, and even where graffiti has been daubed over them it’s been easy to remove from the glossy surface. We also thought that Hammerglass might burn, but that is clearly not the case. It is acrylic plastic that burns - Hammerglass doesn’t.

– We will now continue to replace panels in our bus shelters, continues Mehlqvist. It’s a lot less unpleasant for staff to clean up graffiti than to tramp around in broken glass carrying heavy sheets of glass. And in addition to the working environment and the cost saving, there’s also a third important factor that is at least as important, namely the fact that our customers can now wait for their buses in clean, undamaged bus shelters. So we are very pleased, and we will be happy for other operators to come and visit us on a study trip, Andreas Mehlqvist comments in conclusion.

**For further information, visit hammerglass.com**

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**UNBREAKABLE.**

## INFRASTRUCTURE

TRAVEL CENTRES · NOISE REDUCTION · 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 · UNBREAKABLE MIRRORS

## AUTOMOTIVE

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

A3 CERT CERTIFIED ISO 9001

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CE

A3 CERT CERTIFIED ISO 14001

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2019-02