

**Bus shelters vandalized – again**

shelters smashed – the bill is ab-

aching 60.000 Damaged bus stops – a  
vandalism – several solution may be near:  
panels destroyed “Unbreakable panels”

Numerous bus shelters  
completely shattered

bus stops damaged again  
panels are being replaced

Vandalism against bus shelters again  
Damaged bus shel-  
ters cost millions

**WE HAVE SOLVED A  
SOCIAL PROBLEM.**

Damaged bus stops cost large  
sums every year



Smashed bus shelters and  
graffiti are a growing problem

“It happens every day – all the time”

Broken bus shelters cost  
bulletproof glass is being



**HMG iNFRA**

AUTHORIZED PARTNER of



**Hammerglass**

# FROM EYESORE TO **BUS SHELTER**

**Every year, bus operators have to spend huge sums on repairing shattered bus shelters – completely unnecessarily. The costs run into millions. Taxpayers' money that could be used for innovation, security and the greater good. Isn't that frustrating? We decided to do something about the problem.**

We have developed a new generation of bus shelters in a stylish design that can withstand heavy blows. And we mean heavy blows! This is how we win the battle against the saboteurs. Expensive, you say? Not at all, we reply. The cost of replacing ordinary, tempered glass with Hammerglass pays for itself after a single replacement. Say "Hello and welcome" to the break proof Hammerglass bus shelter!

## **INCREDIBLE BUT TRUE.**

**It is not an exaggeration to say that this is a material that can withstand any conceivable attack, both human and weather-related. Our shelter stands firm and blends into its surroundings, it keeps the passenger visible and protected from wind and rain - and anyone who feels like trying to break the glass will soon give up. Because it is simply not possible.**

## **THIS IS HOW IT WORKS – 7 QUESTIONS AND ANSWERS**

**What differentiates a Hammerglass Bus Shelter from a conventional bus shelter?**

The most important difference is that a Hammerglass Bus Shelter has break proof panels of Hammerglass or X2. Both alternatives are 300 times stronger than glass and there are no repair costs for glass breakage and replacement. The whole shelter is designed to last a long time and reduce maintenance costs.

**Hammerglass is a softer material than glass - doesn't that mean that the panels can be kicked in?**

No, our panels are kick-proof. A common problem with break proof windows is that they can be kicked in. This is not possible with the fastening system that holds the panels in place.

**In how many sizes is the Hammerglass bus shelter available?**

The bus shelter is modular in design and can be adjusted in size according to requirements - it can actually be any length. The bus shelter is delivered as a kit and can also be delivered with its own concrete plinth.

**How tricky is it to clean off graffiti?**

Due to its unique nanocoated surface, the Hammerglass panel is very easy to clean, regardless of whether spray paint or alcohol-based markers have been used. Most common cleaning products work.

**Are Hammerglass panels fire-proof?**

They do not burn at all. Unlike acrylic/plexiglass, our panels are completely self-extinguishing and do not contribute to the spread of fire.

**Is Hammerglass susceptible to scratches?**

Both ordinary glass and Hammerglass can be scratched, but despite its hard coating, Hammerglass is a softer basic material than glass. To further reduce the effects of scratching, we have designed the bus shelter as a multi-segment system, which means that you only need to replace smaller panel parts and not the entire side wall. We also offer cross-patterned panels that effectively conceal any scratches.

**How much does all this cost?**

Hammerglass costs slightly more than ordinary glass, but in return it does not need to be replaced as a result of glass breakage or graffiti. From a cost perspective over the bus shelter's life cycle, Hammerglass is a highly advantageous investment. If you are looking for a break proof budgetary alternative, choose X2 panels which are cheaper but do not have Hammerglass special coating.



# HAMMERGLASS IN REALITY.

## A GOOD INVESTMENT.

**For Andreas Mehlqvist, broken glass is an everyday scenario. He is the stop manager for bus operator Nobina in Stockholm, and is responsible for more than 4000 public transport network stops.**

Andreas has already been project manager for a pilot project in which about 20 bus shelters in Nobina's Södertörn area were fitted with unbreakable Hammerglass. "We have chosen the bus shelters that were most affected by vandalism and which needed the glass replacing every two weeks. Since the installation of Hammerglass panels in September, we have not had to replace any glass at all! We expect to have saved more than EUR 10,000 a month on these 20 bus stops alone - unimaginable figures really."

He admits that he and his colleagues were sceptical at first.

"We were afraid that the panels would be covered in graffiti or kicked out, but Hammerglass' solid attachments ensure that the panels are absolutely secure, and even if there is graffiti on the glass, the shiny surface means that it is easy to wipe off. We also had the misconception that Hammerglass could burn, but that is not the case. Acrylic glass burns, Hammerglass does not."

"It is much nicer for the staff to wipe off graffiti than to walk around in broken glass with heavy panels. In addition to the working environment and finances, there is a third factor that is at least as important, namely that our customers can wait for the bus in a clean, undamaged bus shelter. We are definitely very satisfied and would like to invite other transport companies to come and see us for themselves", Andreas Mehlqvist concludes.

---

*Comment: In the Nobina project, the complete Hammerglass bus shelter was not used but only Hammerglass panels, which were installed in existing shelters.*

## NEW BUS SHELTER OR JUST REPLACEMENT PANELS?

It is perfectly possible to retain existing bus shelters and ask us to install Hammerglass replacement panels. That is the first step towards healthier economic viability and a sustainable solution for the common good. And that is precisely the point.





# TAXPAYERS' MONEY SHOULD BE USED EFFICIENTLY.

## PROCURERS: THERE IS A SUSTAINABLE ALTERNATIVE!

The current situation is as follows: Purchased glass panels are smashed, the broken glass has to be cleaned away and new glass panels of the same type purchased and installed in the bus shelter. One week later the same procedure is repeated. One month later all over again. And so it goes on. The money disappears into a black hole. A rethink is needed.

Procurers have a very important role to play in the public economy. They must make the right demands on the supplier and ensure that society gets the best solution. The requirements to be made when purchasing must ensure that taxpayers' money is put to effective use and that the procured solution is the best and most economically advantageous - not only in year 1, but also in subsequent years - and with all the operating and maintenance costs included.

### LCC - Life Cycle Cost - What does the purchase cost in fact?

Life cycle cost analysis is based on a long-term approach to investments. In the case of procurements of goods and property investments that entail costs for energy use, operation and maintenance, the evaluation must be based on life cycle costs, LCC.

When applying LCC, the economic viability and the costs of a product or plant are taken into account throughout its lifetime. In addition to the fact that the total costs of investment are as low as possible, in most cases the evaluation method means that the environmental impact is lower.

## STRESS TEST.

**WE ENSURE QUALITY – SEE FOR YOURSELF AT**  
**[HMGINFRA.COM/BUS-SHELTERS/](http://HMGINFRA.COM/BUS-SHELTERS/)**



# DO YOU WANT TO KNOW MORE ABOUT OUR VANDAL PROOF BUS SHELTER WITH HAMMERGLASS®?

SCAN THE QR CODE BELOW OR VISIT US AT [WWW.HMGINFRA.COM/BUS-SHELTERS/](http://WWW.HMGINFRA.COM/BUS-SHELTERS/)



## ABOUT HAMMERGLASS®

*Hammerglass® is a nano technology coated polycarbonate sheet, 300 times stronger than glass and virtually unbreakable. The surface treatment renders Hammerglass® resistant to most chemicals. Detergents can be used to clean up graffiti, marker tags or other soiling, without the Hammerglass panels being damaged. 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.*



AUTHORIZED PARTNER of



HMG iNFRA AB  
+46 431-305 000 · [info@hmginfra.com](mailto:info@hmginfra.com) · [www.hmginfra.com](http://www.hmginfra.com)