



## BALLISTIC COMPOSITE

**Material solution with enhanced resistance to extreme loadings.** Ballistic composite is a first-class solution for structures requiring increased resistance to extreme loadings, such as explosion, ballistics and impact. The material solution consists in the application of high-performance cementitious composite, which can be cast into any shape and supplied in the form of prefabricates or cast into the formwork on site.

Main features:

- HIGH RESISTANCE to extreme loadings, such as an explosion, armed and vehicle ramming attack
- HIGH INTEGRITY of the whole structure. The damage is always localized in a small area and the rest of the structure remains undamaged
- HIGH STRENGTH of the MOB-BARS composite that is up to 10 times stronger than conventional concrete resulting in a thinner and lighter structure
- HIGH DURABILITY of the MOB-BARS composite that is guaranteed by its closed pore system resulting in longer lifetime, yielding to lower maintenance costs



## BARRIERS TO PROTECT YOUR SPACE

### EXPLOSION RESISTANCE

Mobile ballistic barriers can withstand pressure loadings and fragments  
Tested according to ISO 16933:2007. The line wall meets class SB4 (X)

### RESISTANCE AGAINST VEHICLE RAMMING ATTACK

HYSTRIX and TESTUDO protect against vehicle ramming attack  
Both systems are tested according to the international standard PAS 68

### RESISTANCE AGAINST PROJECTILE IMPACT

MOB-BARS is characterized by enhanced resistance against the ballistic loadings  
Ballistic composite meets resistance: EN 1522/1523 - Class FB4 and FB 7  
STANAG 2280 - level 3  
STANAG 4569 - level 3



EXPLOSION



BALLISTICS



IMPACT

Since the establishment of the company, we have been working closely with the Police of the Czech Republic and the Army of the Czech Republic, which guarantees the use of the latest global security trends and technologies. We stand ready to assess the security risks and propose their possible solution. Our technology experts provide service in structural design of buildings and deployment of protective elements in places where increased resistance to extreme loadings is required.





## MOB-BARS

**The system of mobile protective barriers.** Responds to the new security challenges of the 21st century and brings measure to minimize them. Barriers with enhanced resistance to impact and explosion effects, which is achieved by using super-fine high-performance cementitious composites. Characterized by easy mobility and versatility through the combination and assembly of its basic elements. The mission is to increase the safety of people in critical areas of civilian and military infrastructure.

It serves mainly for:

- Protection of buildings and strategic infrastructure
- Special checkpoints and fortified posts
- Mobile city barriers and roadblocks for crowd control



## EXPLOSION - BALLISTICS - IMPACT

Main features:

- Significantly lower costs compared to equally performing materials
- Non-magnetic material with enhanced durability and strength
- Very fast assembly on-site without the need for heavy machinery
- Basic element weight up to 55 kg with dimensions of 1,5 x 0,4 m
- Ballistic resistance class FB 4 to FB 7 according to EN 1522
- Enhanced resistance against both projectile impact and explosion effects
- Possible colouring as required



## HYSTRIX

**System of mobile elements for slowing and stopping the vehicle-ramming attack.**

Hystrix base element weighs only 50 kg, allowing easy handling and very fast assembly and deployment on-site. It can be stored outdoors because it is highly durable and weather-resistant. Material is a highly durable composite that guarantees zero maintenance costs. **The development of this system was carried out by the CTU in Prague with financial support from the TA CR GAMA - InovaFOND project.**

Main features:

- ✘ Reasonably low weight
- ✘ Weather-resistant material
- ✘ Fast deployment without the need for heavy machinery
- ✘ Possible storage in a disassembled state, occupying minimal space



## TESTUDO

**Stationary element designed to stop the vehicle.** Testudo is a stationary element made

of a highly durable composite that is mounted on a substructure that must be prepared beforehand. The weight of the barrier is 750 kg, which guarantees the maximum stopping effect even at the collision with vehicle at 50 km/h.

main features:

- Guaranteed to stop an ordinary passenger vehicle up to at 50 km/h
- The vehicle is stopped immediately at the point of the collision with a barrier
- Durable and highly resistant material

