

Surefast - Introduction

Surefast is a new form of construction developed by Corus, combining Bi-Steel panels with a simple and rapid construction system. Surefast is fast and low cost to build and provides high levels of protection.

Applications

Surefast is an ideal solution for:

- Defensive structures (command and control centres, blast walls, control points, personnel shelters, barracks, explosive storage)
- Government buildings
- Commercial buildings
- Industrial buildings and facilities
- Building cores
- Protective/retaining walls.

What is Surefast?

Surefast is the combination of Bi-Steel composite technology and Surefast construction. Surefast enables buildings and structures to be constructed quickly, safely and cost-effectively by maximising off-site pre-assembly and simplifying on-site construction. The inherent strength of Bi-Steel means that Surefast buildings and structures can be designed to resist the most extreme terrorist, criminal or explosive attack.

Surefast connections speed and simplify on-site construction because Bi-Steel sections slot and lock together without the need for welding.

Construction benefits

Speed of construction. This is achieved through modular construction and Surefast “slot and lock” connections. Construction time of Surefast structures is reduced to a matter of hours, with significant economic savings.

Delivered ready to assemble

Surefast structures are delivered as Bi-Steel sections by container or by lorry. Sections can be lifted directly into their final position, avoiding double handling. Just-in-time delivery of the Bi-Steel sections avoids the need for lay down areas, saving valuable space in congested construction sites.

Concrete filling maximises efficiency of construction

Once assembled the Bi-Steel is filled with concrete to achieve full strength. Concrete filling of Surefast structures is straightforward; the two steel faceplates of Bi-Steel panels act as permanent formwork for the concrete, eliminating expensive temporary formwork. Erection of Surefast can proceed well ahead of concrete filling, which gives flexibility, maximising workflow efficiency.

Surefast connections are simple and quick to form

Two adjacent Bi-Steel sections, up to 18m high, can be joined in less than five minutes. Surefast can remove bottlenecks from the critical path of the construction programme avoiding costly site delays.

Pre-assembly reduces work on site

To minimise the amount of work required on-site, apertures for windows, doors, ventilation intakes and extraction are fabricated off-site.



User benefits

Reduced project time

Surefast can be constructed in days, allowing earlier use of buildings and structures.

Cost effectiveness

Surefast structures and buildings are cost-effective to construct as a result of significant reductions in site costs.

Reduced construction thickness

Bi-Steel panels provide unrivalled blast protection to Surefast buildings. Bi-Steel walls can provide the same protection at up to 60% reduced construction thickness compared to a reinforced concrete equivalent, increasing usable space.

Tailored ballistic protection

Bi-Steel panels provide inherent resistance against attack by high velocity fragments or ammunition rounds. Increasing the separation of the faceplates and/or increasing the thickness of the steel plates, tailors the ballistic resistance to suit a particular threat.

Protection against physical attack

Bi-Steel panels have proved to be almost impervious to physical attack. The bar connections between the front and rear faceplates, make gaining entry into the building in a reasonable length of time almost impossible. When Bi-Steel panels are filled with concrete, access delay becomes access denial.

Quality appearance

A wide range of proprietary insulated cladding systems is available providing a pleasing finish, insulation and weather proofing.

Health & safety

Surefast is designed with full regard to the health and safety of occupants and construction workers.

The extent of pre-fabrication and the rapid construction of Surefast structures significantly reduces risk to the health & safety of construction workers.

Assembly of Surefast structures does not require specialist construction skills and therefore poses no additional risk to health & safety.



Contact details

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