Unrivalled blast protection

Bi-Steel provides unrivalled blast protection and blast containment. Over 100 full scale tests have been conducted on counter terrorist blast walls and other structures made of Bi-Steel.

Since 1997, a major series of explosive tests on Bi-Steel has been undertaken by Corus in association with recognised UK and US government agencies. Most of the tests have been conducted on 200-300mm thick panels.

The purpose of these tests was to assess Bi-Steels resistance to explosive attack. The results emphatically prove that Bi-Steel was ideally suited to protect people and assets.

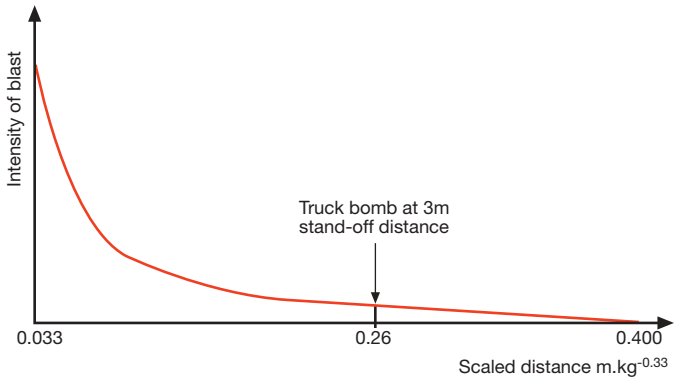
Testing has been undertaken on individual panels (1997), blast walls (1998,1999, 2001) and hardened buildings (1999, 2000). The range of threats against these defences has included bare explosive charges, shells, mortars, rocket propelled grenades, car bombs and truck bombs. Over 100 major explosive tests have been undertaken validating the structure beyond any doubt.

The chart opposite shows the range and intensity of the explosive loading undertaken against Bi-Steel panels. To provide a benchmark for Bi-Steel's performance, reinforced concrete panels are rarely ever subjected to explosive loading at a scaled range less than 0.4m/kg$^{-0.33}$.

In these tests, Bi-Steel's performance against explosive loading has been in excess of any similar systems currently available.

The range of tests is continually being extended to investigate the performance of Bi-Steel panels against different threat scenarios.

The graph below shows the severity of explosive tests carried out against Bi-Steel.



Comparison of surface damage between reinforced concrete and Bi-Steel after a close-in explosion.

Reinforced concrete

Bi-Steel

Video stills from tests in the US, showing before, during and after.

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Contact details

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