

Armorcoat as a Mitigation Measure to Improve the Blast Resistance of Glazing

Inputs from CPNI (Centre for the Protection of National Infrastructure - UK)

The following 'Mitigation Measures' are listed by CPNI:

- Anti-Shatter Film (ASF, like Armorcoat) and Bomb Blast Net Curtains (BBNC).
- Laminated Glass (in normal window frames).

These mitigation measures are used where the potential for flying glass (from a blast) must be reduced, but where it is not practical to use other protection measures because:

- It is not possible to replace the windows because the building is listed or leased
- The building is not considered a likely target but the potential for flying glass caused by the blast from an explosion at some distance needs to be reduced.

More information on mitigation and protection measures can be found on CPNI EBP 01/14.

Basic recommendation for ASF (Armorcoat) requires compliance with the appropriate class of BS EN 12600:2002.

Basic recommendations for windows with pane area below 3 m² and annealed glass up to 6 mm thick

Threat	Car bomb	Van bomb
Ground to 1st floor	Class 1(B)1 ASF or Class2(B)2 ASF + BBNC (see note below)	
2nd to 5th floor	Class 1(B)1 ASF or Class2(B)2 ASF + BBNC	
6th to 11th floor	Class 2(B)2 ASF Only	Class 1(B)1 ASF or Class 2(B)2 ASF + BBNC
Above 11th floor	No mitigation measures required	Class 2(B)2 ASF Only

Note: For medium to large panes (1.8m² to 3.0m²) in Ground and1st floor windows the use of Class 1(B)1 ASF should be considered even if BBNC are fitted to provide additional mitigation.

For more information on how Armorcoat complies with different BS EN 12600:2002 classes, refer to our <u>Safety Glazing Testing Summary</u>

Basic recommendations for windows with pane area greater than 3 m² and annealed glass thicker than 6 mm

Threat	Car bomb	Van bomb
Ground to 1st floor	Class 1(B)1 ASF+ BBNC	
2nd to 5th floor	Class 1(B)1 ASF	
6th to 11th floor	Class 2(B)2 ASF	Class 1(B) ASF
Above 11th floor	No mitigation measures required	Class 2(B)2 ASF Only

Internal Glazing

Class 2(B)2 ASF should be applied on floors up to and including the 11th floor, unless it is safety glazing (i.e. laminated our toughened glass).

Detailed information can be found on CPNI ECP 08/13.

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