

The use of Fire Resistant Expanding Foam

TDS202/180626

Fire Resistant Expanding Foam

Following on from our technical data sheet 096 illustrating the acceptable sealing frames to structure details for our door ranges, there are various brands of expanding PU foams on the market that have been successfully tested to BS 476-22 and BS EN 1634-1.

The use of these products should be limited to the scenarios described by their supporting evidence, which should include the frame material, type of supporting construction, maximum width and required depth of sealant and period of fire resistance.

Two products that have been tested and fully assessed by Kiwa Fire Safety Compliance (formally IFC) are **Blue 60** by Exitex Limited and **FAS Fire Door Foam** by Fire and Acoustic Seals Limited. Based on the contents of assessment reports PAR/16927/01 Rev A and PAR/18385/01 Rev C, David Smith St Ives Limited deem these two products to be acceptable for use with our 30 minute and 60 minute doorsets. In addition, **FAS Fire Door Foam** is acceptable for use with our 90 minute and 120 minute doorsets (FD120 as per Warringtonfire FoA BMT/CNA/F15082 Rev H).

The use of these products is subject to the following restrictions -

- For use with standard type doorsets, excluding projecting frames, frames with feature rebates and shadow gaps
- The overall width and height of assemblies must not exceed 2650 x 2650mm
- Installation must be in accordance with our technical data sheets No.90 and/or No.95
- The gap between the timber frame of the doorset and the structure should not exceed *20mm wide or be less than 5mm (*Softwood frames less than 100mm wide are restricted to 11mm when using **FAS Fire Door Foam**)
- The minimum frame width for both FD30 and FD60 should be 81mm, except when using **Blue 60** for FD60 as this must be a minimum of 100mm
- The minimum frame width for both FD90 and FD120 should be 132mm.
- The cavity must be completely filled with the expanding foam and trimmed back flush with the face of the frame/wall once expansion has taken place, both FD90 and FD120 then require the **FAS Fire Door Foam** to be scraped out by 10mm on both sides to allow 10mm depth capping of **FAS Intumescent Acrylic Sealant**.
- **Blue 60** must be used in conjunction with Blue 60 Packers
- **FAS Fire Door Foam** can also be used as a frame to structure gap joint seal for glazed screens (**Blue 60** not permitted)

When using expanding PU foam on smoke control doorsets it is important to check that the product has been suitably tested for smoke leakage to BS 476 Part: 31 or BS EN 1634-3. From the results of these tests, we are aware that expanding foam does not completely seal and an amount of smoke is able to penetrate at a pressure of 25Pa, this should be considered, and where needed to negate any loss of overall tolerance we would suggest adding a 10mm capping of sealant to both sides as described above for FD90 and FD120. An alternative option would be incorporate well fitted mechanically fixed architraves on both sides sealed with mastic to the supporting structure and the frame.