



suppliers of passive fire products, acoustic and specialist insulation
manufacturers of the Safire Fire Stopping Range

FIRE RESISTANT INTUMESCENT AND ACOUSTIC SEALANT ACOUSTIC PERFORMANCE DETAILS

In an independent test, two typical acoustic structures were examined for their calculated sound reduction properties in dBA, both before and after the introduction of two different width gap seals.

PARTITION 1 – 100mm Blockwork partition, platstered to one side, of dimensions 5m long and 2.7m high

Test 1 – A 10mm wide vertical joint filled both sides to a depth of 10mm.

Test 2 – A 25mm wide vertical joint filled both sides to a depth of 12mm.

PARTITION 2 – Two layers of 12.5mm full density plasterboard either side of 70mm metal studs with 25mm mineral wool in the cavity. Dimension of 5m long and 2.7m high.

Test 3 – A 10mm wide vertical joint filled both sides to a depth of 10mm

Test 4 – A 25mm wide vertical joint filled both sides to a depth of 12mm

RESULTS

PARTITION 1- A value of 47dBA was calculated for the partition wall with no gaps

Test 1. A value of 47dBA was obtained for the partition with the sealed 10mm gap

Test 2. A value of 46dBA was obtained for the partition with the sealed 25mm gap

PARTITION 2– A value of 55dBA has been calculated for the partition wall no gaps

Test 1. A value of 55dBA was obtained for the partition with the sealed 10mm gap

Test 2. A value of 54dBA was obtained for the partition with the sealed 25mm gap

cont...

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Conclusions

There is no acoustic weakening in either partition system as a result of the small gaps(10mm) being introduced and filled both sides with Safire Intumescent and Acoustic sealant

The reduction of 1dB in the partitions with 25mm gaps introduced is regarded as being insignificant and it is considered that this detail is acoustically sound

In order to maximise the sound reduction performance of a partitioning system it is recommended that gaps are kept to a minimum size ideally up to a maximum of 10mm.

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