

Saint John's School

Star Uretech were approached by a customer who required a pedestal adhesive that could be used to reduce sound and vibration transference.

The project was at a school in which a 1st floor gym was to be built with an access floor above a ground floor class room. Although pad type products for both the substrate and pedestal were readily available, these proved to be very costly, relied on the pedestals being mechanically fixed and failed to provide the required level of sound and vibration reduction.



Saint John's School
(Leatherhead)

Star Uretech started finding a suitable alternative by initially testing the existing range of pedestal adhesives available. Although the results of these tests showed that Uretech PA2 performed considerably better than any alternative adhesives, it did not provide the high performance required.

To find a solution to this Star Uretech approached a local university that specialised in acoustics and enquired as to what properties would provide the very best performance in preventing both sound and vibration transference. Upon receipt of this information Star Uretech went on to test over fifty different formulations in over one hundred individual tests. Two materials were identified as being far superior to the others and these were incorporated into a new pedestal adhesive formulation which was called Uretech AA1 acoustic adhesive. Internal tests including the standard T42 swing bag test looked very positive and the formulation was approved for further testing.

A sufficient quantity of this material was manufactured to begin onsite testing at the school. Upon installation Star Uretech sourced an independent testing house to measure how well the adhesive performed and as the following report shows, the results were impressive. Star Uretech went on to discuss ease of application and packaging with the applicators and based on this feedback made improvements to in these areas. This product was finally named StarFix ACOUSTIC and has quickly becoming the industry standard adhesive for acoustic dampening access floors.

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Airborne Results – Floors

| Test No | Source Room | Receive Room | $D_{nT(Tmf,max),w}$ (dB) Measured | Pass/Fail |
|---------|------------------------------------------|-----------------------------------------|-----------------------------------|-----------|
| AF 1 | 119 English 2 Vol. 150 m ³ | 018 Library Vol. 1350 m ³ | 53 | Pass |

Impact Results - Floors

| Test No | Source Room | Receive Room | $L'_{nT(Tmf,max),w}$ (dB) Measured | Pass/Fail |
|---------|---------------|--------------|------------------------------------|-----------|
| IF 1 | 119 English 2 | 018 Library | 39 | Pass |