

Case study

HardRock® delivers BB93 compliance for Stopsley High School

Stopsley High School, Luton



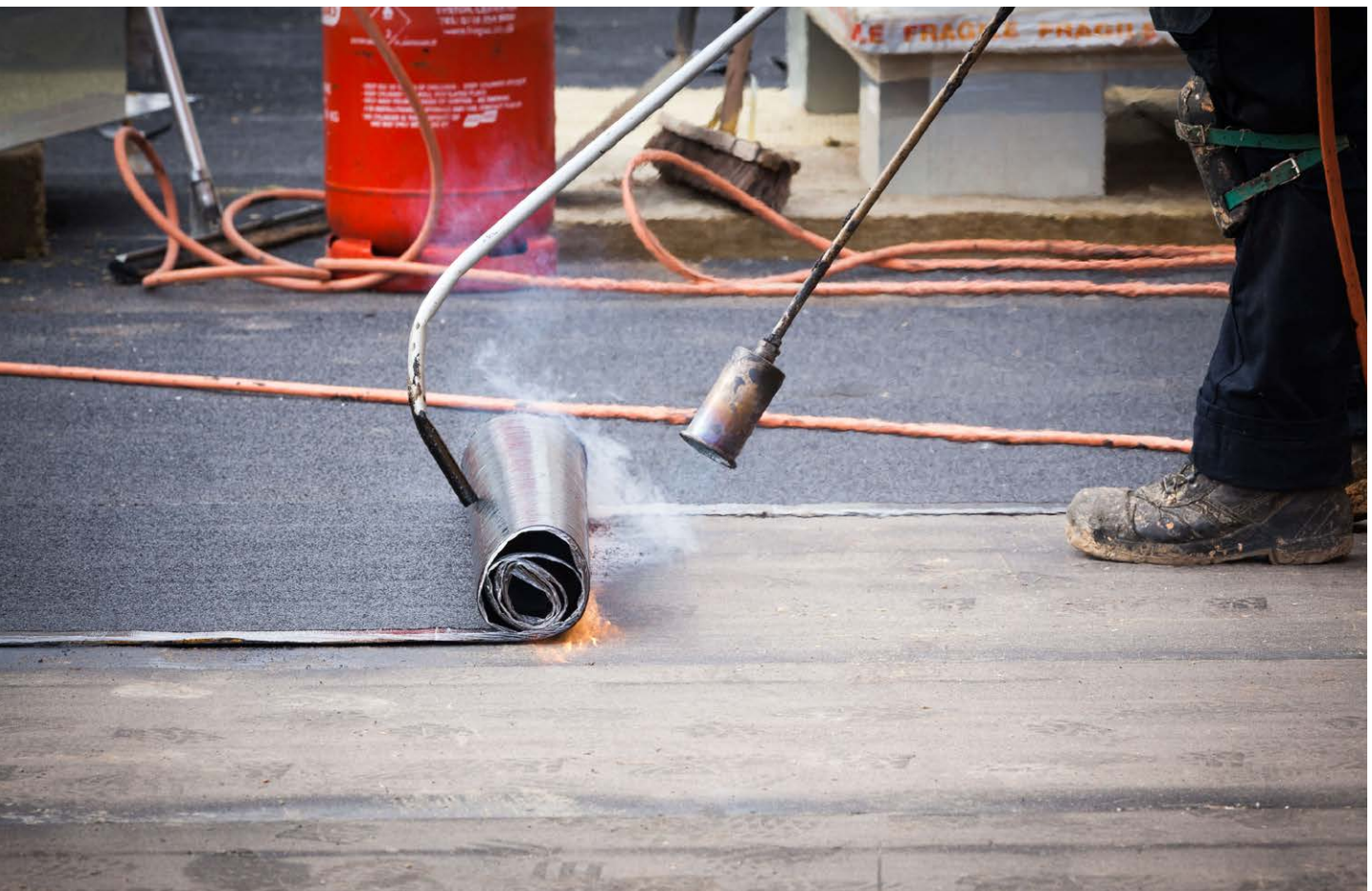


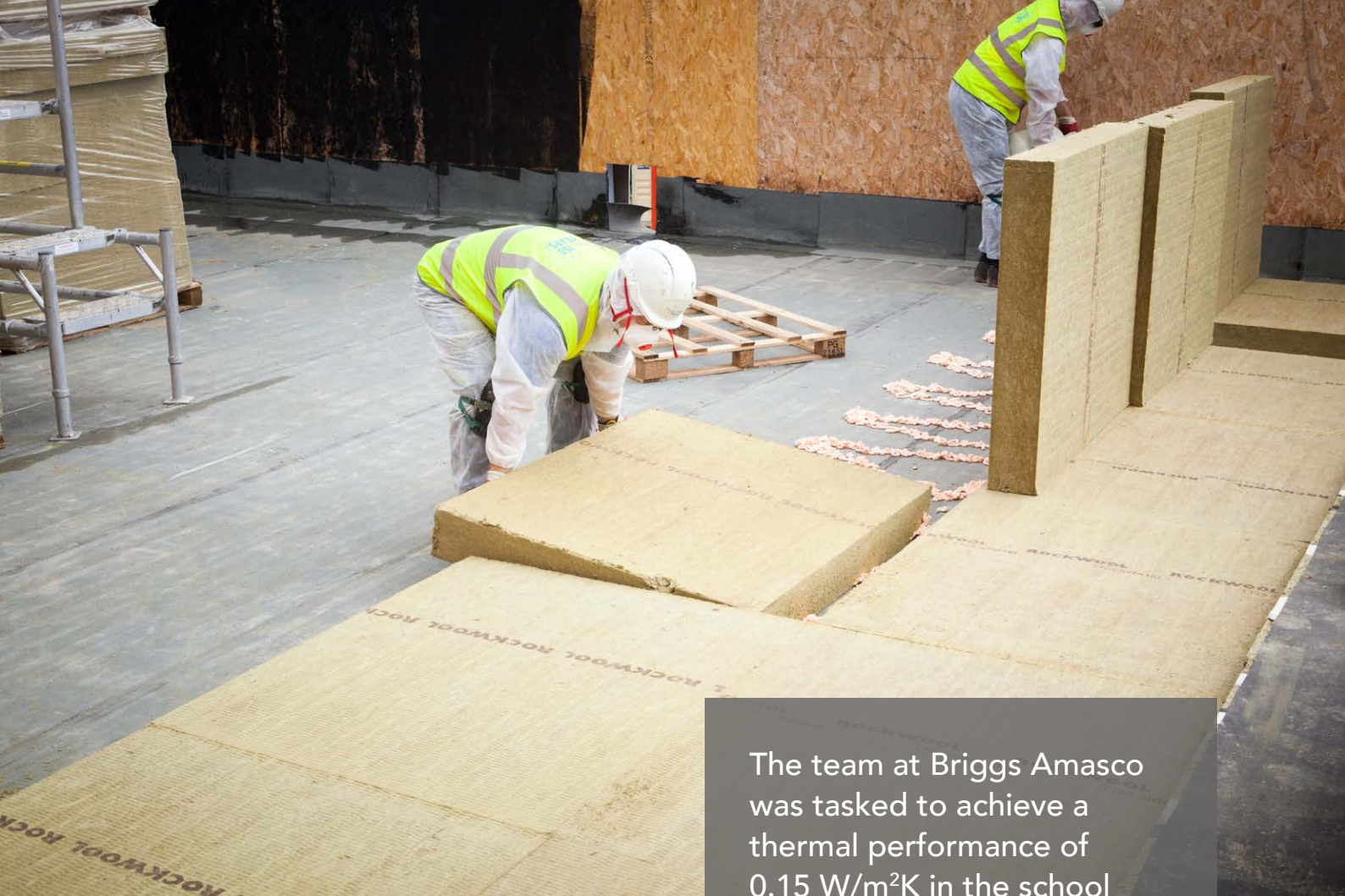
The project

In 2013 Stopsley High School, a 'Specialist Sports College' and mixed Comprehensive and Community College in Luton, received funding from the government via the Priority School Building Programme (PSBP) which aims to address the needs of schools most in need of urgent repair.

For Stopsley High School, this meant a combination of some buildings being demolished and rebuilt while others received upgrades. To support the increase of pupil capacity from 990 to 1,350, a new school building was built to provide 64 classrooms, a four court sports hall, creative and music spaces, and a special needs facility.

Main contractor, Interserve, worked with sub-contractor, Briggs Amasco, and Acoustic consultant, Arup, to deliver a modern, purpose-built, and well-insulated school building. The brief was to provide pupils with a thermally efficient and acoustically sound environment that would be conducive to learning.





The team at Briggs Amasco was tasked to achieve a thermal performance of $0.15 \text{ W/m}^2\text{K}$ in the school building.



The challenge

Stopsley High School had to be built to the highest thermal and acoustic performance specifications.

The roofing solution for the new school building needed to overcome a number of performance challenges. The team at Briggs Amasco was tasked to achieve a thermal performance of $0.15 \text{ W/m}^2\text{K}$ in the school building.

It was also required to meet the stringent acoustic performance requirements of BB93 to achieve a target noise reduction of $R_w 44 \text{ dB}$. Alongside this, a roofing solution that could control the noise generated in high traffic areas of the school, such as the sports hall and music rooms, was desired.





The solution

The team at Briggs Amasco devised a roofing solution that would meet the high thermal and acoustic performance standards that were set out in the brief. ROCKWOOL® insulation products, including HardRock® Multi-Fix (DD) Underlay and ROCKWOOL HardRock Multi-Fix (DD) were specified.

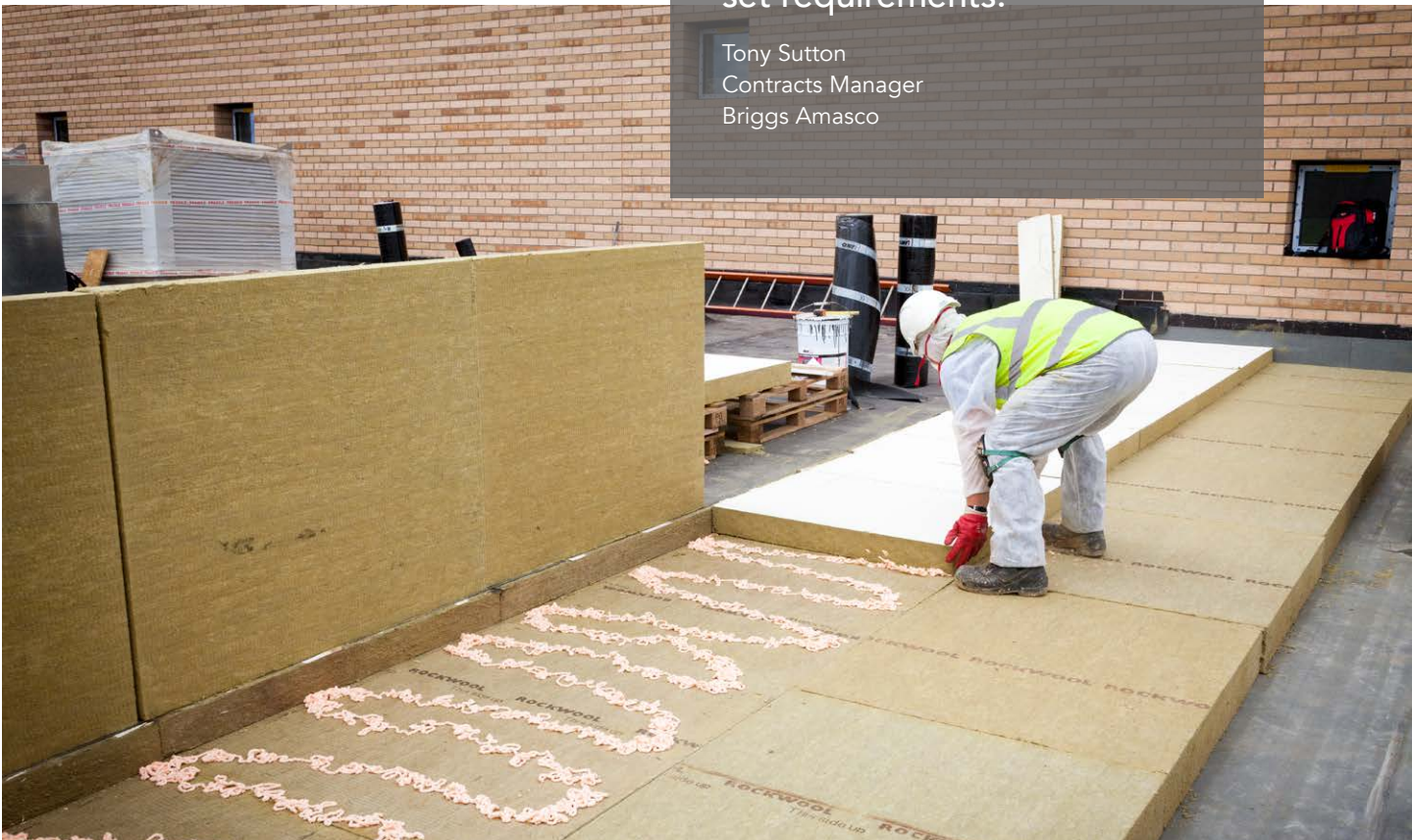
Approximately 600m² of 150mm HardRock Multi-Fix (DD) Underlay and 600m² of 105mm HardRock Multi-Fix (DD) were installed on the flat roof of the newly built school building which includes 64 classrooms, a four-court sports hall, creative and music spaces, and a special needs facility.

Offering optimum density and high dimensional stability, HardRock Multi-Fix (DD) boards were adhesively applied onto the roof of the building. The HardRock Multi-Fix (DD) Underlay was placed across the roof, followed by the HardRock Multi-Fix (DD) boards, providing a non-combustible surface that was compatible with a torch applied bitumen waterproofing system.

The HardRock Multi-Fix (DD) boards helped to deliver a comprehensive thermal, sound, and fire resistant solution that is suitable for this type of multi-purpose application. HardRock Multi-Fix (DD) products gave excellent sound level control, and compatibility for use with other flat roofing systems.

"I have used ROCKWOOL products on several projects previously, so I was confident that the ROCKWOOL HardRock Multi-Fix (DD) roof boards would deliver outstanding results. The ROCKWOOL products act as an excellent sound deadening layer, which helped in controlling the high level of noise coming from the sports and the music halls of the school. The products also deliver optimum levels of thermal and acoustic performance, which helped us achieve the set requirements."

Tony Sutton
Contracts Manager
Briggs Amasco





The result

The thermal, acoustic, and fire resistant properties of the ROCKWOOL products provided Stopsley High School with a roofing solution that was thermally efficient and provided great acoustic properties to enable effective teaching and learning.

Additionally, the non-combustibility of the ROCKWOOL products provided a high level of fire protection to last the lifetime of the school building.

