



# Bostik helps counter moisture damage at National Star College

## CASE STUDY



|                     |                                                                                        |
|---------------------|----------------------------------------------------------------------------------------|
| <b>APPLICATION:</b> | <b>Subfloor preparation and flooring adhesive</b>                                      |
| <b>PRODUCTS:</b>    | <b>HYTEC E336 XTREM, <u>SL C955 ADVANCED</u>,<br/>STIX P956 2K, <u>Bostik ROLL</u></b> |
| <b>LOCATION:</b>    | <b>National Star College, Ullenwood, Gloucestershire</b>                               |

National Star College in Ullenwood, Gloucestershire, is a specialised institution dedicated to empowering individuals with physical disabilities, acquired brain injuries, and associated learning difficulties.

During the recent refurbishment of the college's 200-square-meter swimming pool changing rooms, what seemed like a routine update quickly unveiled a complex web of moisture-related issues in the subfloor.

Bostik, a leading manufacturer of subfloor preparation and adhesive products, partnered with Lake & Co., the

[www.bostik-profloor.co.uk](http://www.bostik-profloor.co.uk)

ALEX LAKE, DIRECTOR AT LAKE & CO. FLOORING

"This project showcases what's possible when you combine the right products with the right expertise. We're proud to have played a part in improving the facilities for the students at National Star College, and we look forward to tackling similar challenges with Bostik in the future."

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appointed flooring contractor, to tackle this intricate renovation. The project's complexity stemmed from the college's unique location and the critical nature of the space for its students.

### SIGNS OF MOISTURE

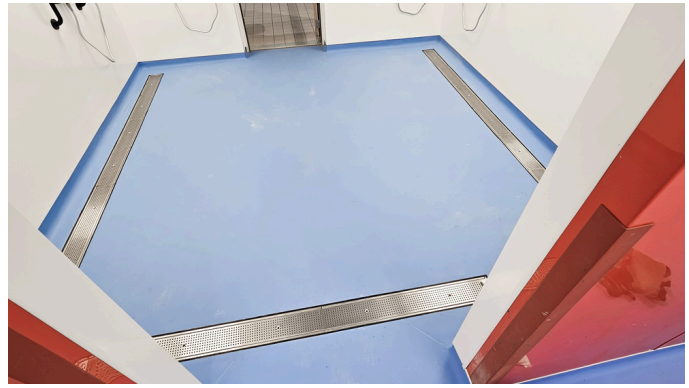
"When we first stepped into the changing rooms, the signs of moisture were immediately apparent," recounted Adam Jones, Bostik's Technical Representative. "The vinyl flooring was bubbling and delaminating extensively, hinting at a bigger problem lurking beneath the surface."

Initial investigations revealed a subfloor structure consisting of a base smoothing compound, an epoxy surface damp proof membrane (DPM), and another layer of smoothing compound. However, the college's location atop a natural spring complicated matter significantly.

Due to the area still being in service, intrusive testing was limited - one small area of the vinyl was removed to assess below the floor covering, revealing alarming results. In areas where the vinyl was removed, the top layer of smoothing compound came up without resistance, indicating poor bonding to the DPM. Efflorescence on top of the DPM further confirmed moisture issues. Most concerning was the Protimeter MMS readings, which detected high moisture levels within the top smoothing compound layer.

"When we used the pin meter on the vinyl, liquid was physically expelled under pressure," Jones recounted. "This suggested we might be dealing with hydrostatic pressure."

Faced with these challenges, Bostik's approach needed to be methodical, comprehensive, and designed to address immediate concerns while safeguarding against potential future issues.



### A COMPREHENSIVE SYSTEM

"The work began with the complete removal of the existing floor covering and compromised smoothing compound. This was followed by a careful abrasion of the epoxy DPM, creating an optimal bonding surface for the new system. At the heart of the solution was the application of Bostik HYTEC E336 XTREM, a two-part, high-performance DPM specially formulated to withstand extreme moisture conditions and resist hydrostatic pressure. This provided a barrier against the persistent moisture issues plaguing the facility.

Once the moisture barrier was in place, the team proceeded with the application of [Bostik SL C955 ADVANCED](#), a high-performance, fast-drying smoothing compound that can be applied directly to most common substrates without priming due to its high adhesion and low shrinkage properties. The process culminated in the bonding of the new Altro Aquarius Dragonfly anti-slip vinyl using a specialised adhesive, Bostik STIX P956 2K, a PU adhesive with very high bonding performance and moisture resistance, ensuring a secure and long-lasting installation.

This comprehensive, layered approach effectively addressed the complex moisture challenges of the swimming pool changing rooms, providing National Star College with a durable flooring solution tailored to their unique needs.

Ben Thomas, Area Sales Manager at Bostik, highlighted the critical role of the smoothing compound in the project's success: "In challenging environments like this, [SL C955 ADVANCED](#) truly shines. Its exceptional flow characteristics and rapid drying time allow you to create excellent foundation quickly. This high-performance compound's ability to be applied directly to most substrates without priming saved valuable time and labour, while its strength and low shrinkage properties ensured a stable base for the final flooring. The [SL C955 ADVANCED](#) worked in perfect harmony with our moisture mitigation system, delivering a subfloor solution that can withstand the demanding conditions."

### THE POWER OF COLLABORATION

As with many renovation projects, unexpected hurdles emerged. Midway through the process, the shower area drains needed to be replaced, necessitating a week-long pause in flooring work. Despite this, the effective system



provided by Bostik ensured the work could be completed on time. "That's where Bostik's expertise really shone," praised Lake & Co.'s Director, Alex Lake. "Their technical team guided us on how to properly rejoin the two DPM applications, ensuring a seamless moisture barrier despite the interruption."

The completed project stands as a testament to the power of collaboration. The new changing room floor not only resolved the persistent moisture issues but also provided a safe, hygienic surface ideally suited to the needs of National Star College's students.

Alex Lake concluded: "This project showcases what's possible when you combine the right products with the right expertise. We're proud to have played a part in improving the facilities for the students at National Star College, and we look forward to tackling similar challenges with Bostik in the future."

