

CONSERVATORIO MUNICIPAL MUSIKENE, SAN SEBASTIAN

A highly regarded institution, the Academy of Music in San Sebastian sits alongside the Urumea river. This superior centre for music in Basque country is a well established centre for all ages, focusing on performance, composition, management and pedagogy.



PROJECT

Conservatorio Municipal Musikene,
San Sebastian

Design Engineer:
Alejandro Zaera Polo
Ayuntamiento de San Sebastian

General Contractor:
UTE Musikene (Acciona/Lurgoien)

LOCATION

San Sebastián, Guipúzcoa, Spain

PRODUCTS

VOLTEX® DSCR
WATERSTOP-RX

CHALLENGE:

The project is located along the Urumea river and results from the geotechnical report indicated elevated levels of contaminated ground conditions. This information was not available during the design stage of the project so consideration had to be given in respect of selecting an appropriate waterproofing membrane that would perform satisfactorily in the site ground conditions.

Both the General Contractor and the Owner saw tremendous value in a site waterproofing compatibility test being performed in a laboratory to indicate the suitability of the system under consideration. This test was done before awarding the waterproofing package to ensure the specified product would perform under the site conditions.

CETCO was in competition with three other bentonite geotextile manufacturers, none of which passed the external laboratory testing apart from VOLTEX® DSCR which was shown to resist higher levels of contaminated ground water than the other product. This was also verified through CETCO's R&D laboratory performing a waterproofing compatibility test procedure, that confirmed Voltex DSCR was fit for use.

SOLUTION:

VOLTEX® DSCR was originally specified by GAZ Architects as the active below-ground waterproofing membrane based upon the previous design. Once it became apparent that there were elevated levels of contamination in the ground conditions that were not previously allowed for in the waterproofing design, CETCO was the only company able to demonstrate the performance of their product and supply VOLTEX® DSCR as the below ground waterproofing system for the project.

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The one storey deep building structure's water level was above the slab and VOLTEX® DSCR was installed under slab. The most critical point was the lift pits, where the water pressure was highest, protecting sensitive mechanical equipment. The building foundation consisted of more than 100 pile caps covering the whole surface of 4,000 SQM.

In some cases, the pile caps were clustered together which required a flexible membrane in order to conform to the conditions. VOLTEX® DSCR fitted to the site structure and timing requirements.

EXECUTION:

The support of the CETCO team during the installation phase was crucial for the site managers to meet the project schedule. Because of the training provided, applicators were able to install the material in a short time with a focus on quality. Local CETCO Technical Sales Managers provided technical site support, which proved to be crucial in keeping the project moving forward. The concrete construction joints were also sealed with a CETCO accessories system.

RESULT:

The waterproofing compatibility test performed in one of the most prestigious laboratories in Spain focused on quality, not price. In spite of the hydrostatic conditions in underslab elevation and the hundreds of pile caps which penetrate the membrane, the installation was done quickly and successfully. The importance of this new Music Academy in North Spain has been used as a reference in other big projects.