TEESSIDE MIMA ART GALLERY - FLAT ROOF REFURBISHMENT

Single ply overlay to a warm roof of an art gallery

Project Client: Teesside University

Specified products:

Flat Roofing Waterproofing System: TOR Elastaseal Z

Duration: 4 Weeks

Project Start: March 2021

Project Finish: April 2021

Area:1,500m2

StructureCare

Construction Products Group Europe

PROJECT OVERVIEW

StructureCare were appointed as main contractor for the flat roofing refurbishment works at The Middlesbrough Institute of Modern Art's (MIMA) gallery. Located in Centre Square, Middlesbrough, since 2007 operating as an art museum and gallery, it has been part of Teesside University since 2014 and is now also a creative resource and cultural hub of MIMA School of Art and Design. In an impressive contemporary building rising 16.5 metres and clad in Turkish limestone, MIMA's current single-ply roofing system had lost its elasticity and was at the end of its service life.

These issues can be common in all single-ply roofs that are near the end of their life. Years of exposure to UV, thermal cycling and weathering can cause shrinkage and tension in the membrane, which will focus on weaknesses in laps, seams and at details. Without the application of a new flat roofing system, it was clear that in the near future water would ingress into the gallery and likely cause damage. A long-term solution was required that would ensure the art gallery remains watertight and that the priceless art stored inside was protected.

StructureCare embarked on a four-week full roof waterproofing scheme on the weather-worn flat roof. StructureCare was appointed via an open tender undertaken by Teesside University, evaluated on both quality and price. StructureCare provided an alternative system for consideration by the University. After evaluation, the university deemed that the StructureCare specified TOR Elastaseal Z system was suitable to offer complete protection to the MIMA Building.

Before works commenced, StructureCare carried out pull-off adhesion tests to ensure that the existing single ply system could be overcoated with the chosen TOR Elastaseal Z system. StructureCare specified this product as it is a leading liquid waterproofing solution that is quick to apply on existing roofs with weather-worn substrates and is particularly beneficial as a long-term solution to commercial buildings with flat roofs.

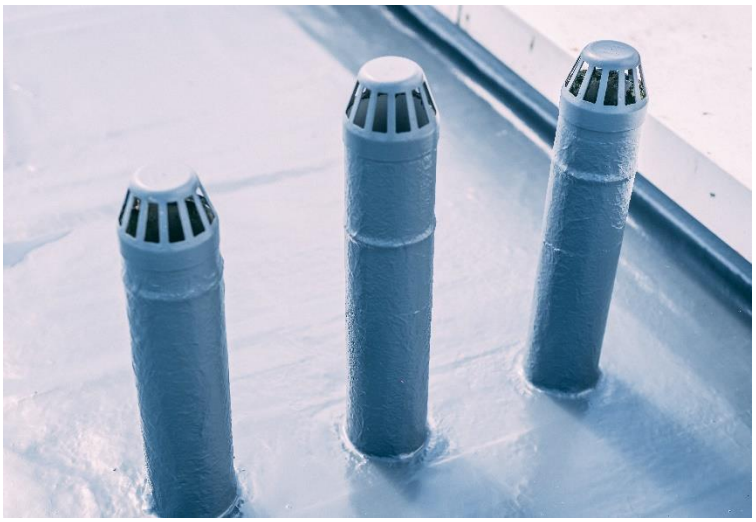
A detailed moisture mapping survey was also undertaken to identify areas of saturated insulation which were removed and replaced as part of the works.

John Martin, oversaw the project for StructureCare and explained that the design of the building required the installation of a permanent Latchway fall arrest system to ensure safe working. "Our installation team worked in full harness and fall arrest equipment on the roof area and the sloping canopy section. Despite the challenging weather conditions on the 16.5 metre high roof, we managed to complete the project within the four-week deadline. I am proud that our works ensure that the museum's priceless artworks continue to be protected".

The flat roofing works were completed on schedule and to everyone's satisfaction with the Teesside University project manager responsible for the scheme stating the following:

"From the pre-start meeting through to final completion, StructureCare management and on-site operatives worked very closely with me and MIMA staff maintaining a good daily dialogue to ensure potential issues were evaluated and addressed. Work was undertaken diligently and always in compliance with submitted RAMS and the University's specific requirements. I would not have any hesitation in using StructureCare again on any future University roofing project".

PROJECT PHOTOS

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