



SIKA AT WORK

NINE MILE POINT INDUSTRIAL ESTATE

CONCRETE: Sika® ViscoCrete®-150 PF, Sikafloor®-ProSeal W and Sikafloor® FibreShield

BUILDING TRUST



NINE MILE POINT INDUSTRIAL ESTATE

SIKA HAS RECENTLY BEEN INVOLVED IN THE CONSTRUCTION OF A NEW 3,600M² SOLID RECOVERED FUEL (SRF) AND REFUSE DERIVED FUEL (RDF) PRODUCTION FACILITY AT NINE MILE POINT INDUSTRIAL ESTATE, CWMFELINFACH, WALES.



The new £7.7M project, comprising a 45m x 80m clear span portal frame, is a highly specialist plant, which provides for sorting, shredding and processing of waste, to produce refuse derived fuel which can be used in cement kilns.

Working in partnership with Konfloor Ltd and Breedon Group, Sika provided a solution for the flooring of the facility which was equipped to handle the challenges that are encountered at such a location.

Project requirements

Starting at the end of 2020 and finishing in January 2022, the waste facility's size and purpose required a robust flooring solution, able to cope with the high impact and abrasion entailed in its end use.

Approximately 1500 m³ of concrete was required at Nine Mile Point Industrial Estate. The mix specification was proposed by Konfloor Ltd with Breedon and Sika then developing a mix design, powered by Sika concrete admixtures to fit the brief.

Konfloor Ltd determined the need for concrete with high workability, neutral set properties and which could be finished using a power float, thus producing a hard-wearing, smooth and level surface finish.

Solution

Concrete was supplied over a five-day period and Sika's contribution came in the form of a new flooring admixture and the dry-shake surface hardener and fibre suppressor. Sika® ViscoCrete®-150 PF – a liquid superplasticising admixture for concrete – was dosed at the location and was chosen to help maximise durability whilst achieving the desired finish using a power float. Allowing for high workability, tightly controlled air content and with a neutral effect on setting time, Sika® ViscoCrete®-150 PF is ideal for this application and meant Konfloor Ltd could start the finishing process after just two hours.

Enabling high compressive strength, the formulation of Sika® ViscoCrete®-150 PF promotes improved cohesion as well as early and ultimate strengths. A combination of these benefits meant it was a suitable option for this specific project.

In addition to this, Sikafloor®-FibreShield, a synthetic dry shake hardener for concrete, was utilised alongside 40 kg/m³ of steel fibres and Sikafloor®-ProSeal W, a one-part water dispersed acrylic emulsion, was applied in order to cure, harden and seal the surface.

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Ben Chase, Breedon Regional Commercial Manager - South West and Wales, commented: **“THIS PROJECT NEEDED AN ADMIXTURE THAT COULD OFFER HIGH WORKABILITY, STRENGTH AND LONGEVITY TO WITHSTAND ITS ENVIRONMENT. WE WORKED WITH THE SIKA TEAM TO TAKE INTO ACCOUNT THESE ELEMENTS AND PROVIDE A SUCCESSFUL SOLUTION WHICH WE WERE CONFIDENT COULD HANDLE THE EXPECTED ABRASION, WEAR AND TEAR. THIS WAS SUPPLIED ON TIME AND ALLOWED THE QUICK PROGRESSION OF THE PROGRAMME WITHOUT ANY DELAY.”**

Sources:

https://www.albertfryassociates.com/archives/our_projects/solid-recovered-fuel-refuse-derived-fuel-production-facility-at-nine-mile-point-industrial-estate-cwmfelinfach-wales



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