

Project:

Roof waterproofing of electrical service buildings beside coke oven and pusher machine

Location:

Sama (Asturias, Spain)

Project completed:

2014

Owner/s:

Industrial Química del Nalón S.A.

Applicator/Contractor:

TVMAC

Designer/Architect/Specifier:

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Market sector:

Chemical industry

Products used & amounts:

MasterSeal Roof 2689

Industrial Química del Nalón

Roof waterproofing of electrical and service building



Our reference project in Asturias (Spain); Roof waterproofing for Química del Nalón

The background

Industrial Química del Nalón, S.A., is an independent private family company. The company focuses on the carbochemical sector and is the leading producer of foundry coke in Spain. It is also one of the main European producers, exporting to numerous countries in Europe and throughout the world.

The company has its headquarters in Oviedo (Spain) and its production facilities in Sama de Langreo (Spain) focus on foundry coke production. The company has other production plants in Trubia and Aviles (Spain), as well as in Szczecin (Poland).

Coke is a porous carbon material produced by the high-temperature distillation of dry coking coal in the absence of oxygen.

The challenge

The coke ovens are installed in the same building as the electrical switchgear assembly, the laboratory and other utilities.

The roof of the building is in the working area of the coke pusher machine. This pusher machine is operated continuously and there is a risk of hot coke particles falling on the roof while the pusher is in operation.

In this case, it was necessary to apply the waterproofing membrane without shutting down the pusher. The waterproofing membrane had to withstand impact and temporary high temperatures.

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Industrial Química del Nalón

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Substrate preparation



Spraying of MasterSeal M 689 polyurea membrane

Our solution

In view of the specific requirements of the project, it was decided to apply a hot-sprayed polyurea membrane: MasterSeal M 689.

The membrane was applied to a properly treated and cleaned concrete surface after the application of MasterTop P 617 primer to ensure adhesion and to seal pores in the concrete.

MasterSeal M 689 was applied using suitable two-component heated high pressure proportioning spray equipment. The work was carried out by TVMAC, a highly specialized company that could solve all the technical requirements of the project

The customer's benefit

- The membrane was applied without any interruption to production. There was no need to shut down the coke ovens or the pusher machine.
- Continuous, seamless, membrane. Fully bonded to substrate over the complex shape of the area.
- Quick hardening. MasterSeal M 689 membrane forms in a matter of seconds and the treated surfaces are returned to service with full performance after only a few hours.
- Excellent long term chemical resistance combined with very high elasticity, preventing damage to the membrane caused by cracks or movements in the substrate.
- MasterSeal M 689 can be used outdoors without a topcoat as it is UV-resistant (with only slight yellowing over the course of time). It offers maximum performance in terms of chemical resistance.
- The high mechanical and thermal resistance of MasterSeal M 689 ensures durability under impact from coal residue.

Projects facts at a glance

- Total surface treated: 450 m²
- Total sprayed membrane: approx. 1,000 kg.
- Completion in four steps adapted to movement of the pusher machine.

Master Builders Solutions by MBCC Group

The Master Builders Solutions brand brings all of our expertise together to create chemical solutions for new construction, maintenance, repair and renovation of structures.

Master Builders Solutions is built on the experience gained from more than a century in the construction industry. The know-how and experience of a global community of construction experts form the core of Master Builders Solutions. We combine the right elements from our portfolio to solve your specific construction challenges.

Further information is available at:

<https://www.master-builders-solutions.com/es-es>