

Press release
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Thermal technology reduces the lead time of concrete elements in the casting process

Combitherm in East Jutland provides thermal technology that can increase efficiency and ensure consistent quality in the concrete element industry. This is done with specially designed thermal concrete duvets adapted to the needs of the customers.

Combitherm is a versatile company with thermal solutions for a wide range of industries. Actually, the company is a large sewing shop that produces thermal mats for many different purposes. The range of products is wide, from pallet covers for the pharmaceutical industry to concrete duvets for the construction industry.

For 15 years, Combitherm has developed and produced concrete duvets that are laid over newly cast concrete elements. A large part of the production is exported. For example, the company supplied large quantities of concrete duvets for stadium construction during the London Olympics. But it does not stop there. The company has developed specially designed thermal concrete duvets to ensure a more consistent quality in concrete element production. It is all about controlling temperature in the curing process, where reduced temperature differences during curing in the concrete elements, secure good quality.

Hardening develops heat

One of the critical points in the production process is the heat development during curing.

At Gandrup Element A/S in North Jutland, they work continuously with optimisation and quality assurance of the concrete elements. The choice fell on Combitherm, which in collaboration with the company has developed easy-to-handle concrete duvets that are placed over the element, when it is taken out of the mould.

“So far, we have three concrete duvets of this type, and the experience has actually been excellent because the duvets are easy to handle, and they ensure that the temperature is controlled. We can easily see this from the measurements we are constantly making,” says Quality Manager Peter Lundquist at Gandrup Element A/S.

Loggers are embedded in the concrete, and loggers are also placed under the concrete duvets to monitor the temperature both inside the element and outside, between the concrete mat and the surface of the element. The loggers monitor that the temperature difference between the core and the outside of the element does not become too large.

This ensures that the curing takes place uniformly throughout the element and that no damage occurs during the curing process.

Developed jointly

Combitherm develops the concrete solution in collaboration with the customer because the product must be adapted to the specific needs.

“Our most important task is that the product must be fully customised, which is how both the customer and we achieve the best results,” says Morten Spangtoft Hansen, Key Account Manager at the company.

The consultants from Combitherm liaise with the customer early in the process to determine the type of insulation, the type of foil and the design of each thermal solution to achieve the best result.

Developing and optimising the product together with the customer can optimise the consumption of cement and chemicals in production, which in turn allows for a potential reduction in the lead time in producing a concrete element.

Versatile production

The thermal solution can be adapted to all types of insulation tasks. There are almost no limitations. Special fibres retain heat or cold, depending on the customer needs.

Customers who need products by air freight also like to use thermal covers from Combitherm precisely because they are light and 100% adapted to the specific task. Precise customisation also makes the product easier to handle.

Captions:

Key Account Manager Morten Spangtoft Hansen shows how the stitching is done.

The concrete duvets consist of several layers. The large concrete duvets are made at the factory in Them.

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