



Concrete duvets retain heat on concrete elements

Casting concrete elements is an advanced technological and chemical process that needs to be controlled down to the smallest detail in order to achieve the right quality. Gandrup Element A/S excels at this technique and has optimised the curing process in collaboration with Combitherm.

Concrete elements cannot cope with the cold

When the North Jutland manufacturer of concrete elements, Gandrup Element A/S, produces elements, it is extremely important that the concrete hardens in the right way. When the concrete element leaves the mould, it needs to harden and the hardening process causes the element to generate heat. However, if the element cools down too quickly, if e.g. it is moved directly out into the winter cold, then things go wrong and the element may not achieve the required strength and cracks may occur in its surface. Therefore, the element must be allowed to harden and cool down properly. This is ensured by controlling the cooling and, thus, the hardening process to allow the element to achieve the right quality and strength.

Insulating concrete duvets is the solution

Therefore, Gandrup Element A/S has joined forces with Combitherm. Combitherm has the right solution which is a specially developed insulating concrete duvet that is placed over the element; temperature sensors are placed underneath it, and sensors are moulded into the element. The mat prevents the temperature from decreasing faster than intended, even if the element is placed outside.

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*Ernst Enevold Nielsen
Gandrup Element A/S*

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“So far, we have acquired three concrete duvets of this type and our experience is actually really good because they are easy to handle and ensure that the temperature is controlled. We can easily see this from our continuous measurements,” says Peter Lundquist, Quality Manager at Gandrup Element A/S. He adds that he can see from the measurements that the core temperature of the element and the surface temperature underneath the duvet are concomitant, which means that the element hardens and cools at the right pace.

The quality of concrete elements is maintained

He is supported by his colleague, Ernst Enevold Nielsen, Production Manager at the large factory: “Combitherm came up with the idea to try their products. And we actually did experience a bit of trouble with the old mats because they were heavy and difficult to handle. It is not like that anymore. The concrete duvets from Combitherm fit the size and are adapted to our needs, so it works really well.. It is important that we can maintain the right quality in the concrete element and that it is not too difficult to handle,” he says.



Gandrup Element A/S is located in the town of Gandrup just north of the fjord Limfjorden and employs around 120 people. The company is a turnkey supplier of shell structures. With its more than 45 years of experience and active development, the company has gained expertise with all types of concrete and lightweight concrete elements - regardless of the size or special design of a project. A turnkey project may be e.g. a complete pre-assembled shell structure consisting of everything from basement to roof - including facade elements, wall and sandwich elements, decks, balconies, stairs, columns, beams, etc.

Why you should use concrete duvets

1. Shorter curing time when casting
2. Reduced throughput time and thus improved utilisation of moulds
3. Ensures a higher and more uniform quality
4. Possible to optimise material consumption



Production manager Ernst Enevold Nielsen covers an element that needs to harden with a concrete duvets from Combitherm. Photo: Torben Sigh

World-class temperature control

Combitherm is amongst the leading European manufacturers of flexible, tailor-made and energy-saving thermal solutions for a wide range of industries working with temperature-sensitive products and processes and where temperature fluctuations must be kept to a minimum.

Our products include thermal covers, truck partitions, insulating mats, winter, concrete and asphalt mats as well as composite covers, all of which are important elements in the cooling chain in the transport and storage of e.g., foods and medicine or in relation to companies wishing to stabilise casting and curing processes within concrete and composite.

All development and production take place in Denmark, and with more than 40 years of experience, Combitherm offers advice and sparring thereby ensuring that our customers get an optimal, customized solution with long durability and consideration for the environment.