



- > Home
- > Program
- > Exhibition
- > **Innovation Award**
- Members of the jury
- Award 2008
- Award 2007
- > How to get there
- > Press
- > Contact us
- > Dates
- > Imprint



Award 2008

Award of the Innovation Prize Structural Concrete Products

The Innovation Prize of the Supplier Industry Structural Concrete Products this year was awarded to DESCAM 3D Technologies GmbH from Oberhaching for its system for determining the density of concrete and to Dyckerhoff AG, Wiesbaden, for its special cement Nanodur®. The award ceremony was held at the opening of the 52nd BetonTage on 12 February 2008 in Neu-Ulm.

DESCAM 3D Technologies GmbH won in the category Machinery and Plant Engineering. The laser-measuring and analyzing system LAMAS 21W was developed for rapid, precise and non-destructive determination of the density of the concrete blocks on the wet site. To do this, the machine operator takes a sample from the earth-moist concrete block from the board, places it on the revolving plate of the measuring device and starts the automatic measuring process. The density of the concrete is displayed in less than 15 seconds with a tolerance of 0.25%; other output values are height, volume and weight. Values that lie outside the predetermined tolerance are specially marked. In this way it is possible to directly intervene with the production; production parameters can be optimized and waste can be prevented. All of the measured values and the position on the board from where the blocks were removed are continuously recorded. Based on these data, trend analyses can be worked out over a longer period of time; comparisons between various production sites can easily be made. Another advantage of the measuring device is that the density measurement takes place in a non-destructive manner so that the concrete blocks are available for the subsequent mandatory strength test. The measuring device was introduced for the first time at bauma 2007.

Dyckerhoff AG won in the category Concrete Technology with its special cement Nanodur®. For the manufacture of high-performance concretes, Portland cements in combination with silica fume are customarily used. But these concretes can also be obtained without silica fume, using granulometrically optimized binders. For this, ultrafine cements from Dyckerhoff's Mikrodur technology with particle sizes of between 6 µm and 16 µm are used. The ultrafine cement particles moreover achieve a higher packing density, but react, as cement, earlier than silica fume, i.e. about the same time as the binder. With Nanodur® a ready-to-use binder was developed that meets the requirements of the cement standard. With the considerably reduced batching quantities that are required and the clearly higher reactivities, the production conditions for UHPC can be greatly simplified. On laboratory mortars, made with comparatively low cement contents and cured under conditions in accordance with the standard, compressive strengths over 150 Mpa and flexural strengths above 20 Mpa were achieved.

The Innovation Prize of the Supplier Industry Structural Concrete Products has been awarded every year by the FBF Betondienst GmbH, the organizers of the BetonTage, together with the technical journal BFT INTERNATIONAL since 2003 and is endowed with a value of 3,000 euros. Prize-winning innovations are from the areas of concrete technology, production engineering, reinforcement and fixing technology, services, machine and plant engineering and automation. Evaluation criteria are the degree of innovation and the originality of the entries, the relevance for the precast concrete industry, the market and application potential and consideration of technological standards.