



## Approved for greater sustainability.

Officially certified sustainability: the “Cobiax CLS” voided flat slab system has now obtained technical approval from the German Institute of Building Technology (DIBt, Berlin). Our latest product development is impressive in use, not least through its flexibility. Cobiax CLS enables floor slabs to be created ranging from 20 to 80 cm deep. New technology simplifies transport and assembly of the individual elements. At the same time, installation no longer calls for expensive reinforcement steel to assemble and secure the void formers. As a result, this system, made from recycled plastic, ensures that substantially less concrete is required for constructing floor slabs. This not only leads to slim, reinforced concrete slabs with wide spans and great architectural freedom: it also significantly improves the ecological balance of a building.

Planning security instead of project-specific technical approval: the recent technical approval for our “Cobiax CLS” , has made building sustainable structures substantially easier. The voided flat slab system has now been officially approved, so using it on construction sites in Germany

is noticeably easier. This also sets it apart from competitor products. We first launched our CLS line to the public two years ago, at the world’s leading trade fair „BAU“, where it was very well received by trade visitors. The letters stand for „Concrete Lightweight Structures“: like its predecessors, the patented structural formers are used in reinforced concrete slabs.

The void formers inset mean that up to 35 per cent less concrete is needed for each floor slab. Slabs constructed using this technique are therefore much, much lighter, while losing none of their load-bearing ability. The result is slabs with wider spans along with greater architectural freedom. In addition, valuable resources are spared, because concrete in particular still uses up a large proportion of the world’s dwindling supplies of building sand. The elements are made of recycled plastic, so the manufacturing method used for the CLS system already meets high sustainability standards. Another plus point: using void formers noticeably reduces CO<sub>2</sub> emissions - such as in cement production or



Now it's official: the "Cobiox CLS" voided flat slab system has obtained technical approval from the German Institute of Building Technology (DIBt, Berlin). Source: Heinze Cobiox Deutschland GmbH

delivery. However, this does not mean that the CLS line differs in any way from our already-established, successful Cobiox models.

## Many versions, to meet the full range of requirements

Previously, our void former elements only came in two versions - the „Cobiox EL“ (Eco Line) and „Cobiox SL“ (Slim Line). With the Cobiox CLS, the product portfolio has been expanded to include a third version, which primarily relies on flexibility: „Our CLS product line enables floor slab depths of between 20 and 80 centimetres,“ explains Cobiox Managing Director, Volkmar Wanninger. „This offers more options for variations in design and construction.“ The individual element halves come in seven different heights altogether. The modular principle means a total of 19 different void former variants can be created, with support heights from 11 to 59 centimetres. However, the standard base area of 60 by 60 centimetres ensures that, before being used as structural formers, they can easily be stacked one inside the other for storage and transport. As is often the case with the tried and

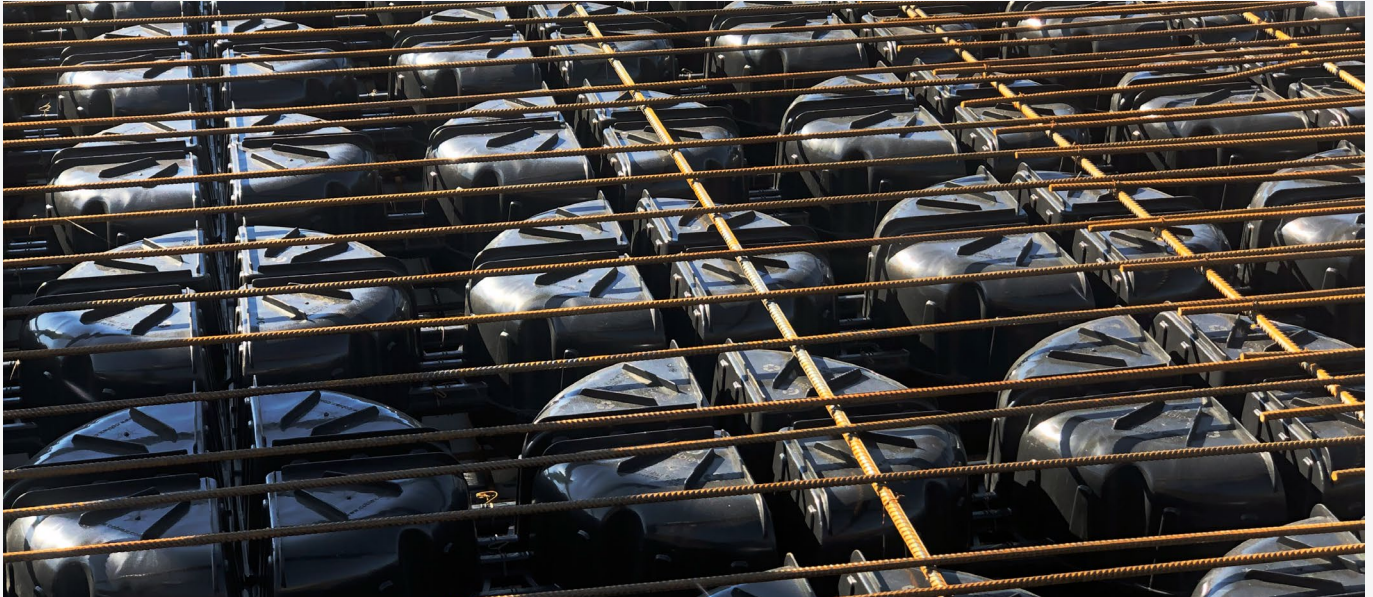
tested Cobiox SL product line, the new CLS elements are only assembled at the construction site, which means that transport can be reduced to a bare minimum. The CLS line is also impressive through its intuitive handling: on site, the two halves are simply joined together by hand - no additional equipment is required.

Another plus point compared to previous models: thanks to their brilliant design, the CLS elements do not require any separate steel components for fixing. Instead, they can simply be joined together in a grid pattern and so form a solid, closed structure. This saves on expensive reinforcement steel - as well as on concrete. “The construction sector is still responsible for consuming an enormous share of the world’s resources. It is therefore our intention to keep modern and sustainable building always at the forefront of our thinking,” said Wanninger. “With the CLS line, we have not only reduced the effort required for logistics, but also simplified handling at the construction site. Now, we are delighted with the approval from the German Institute for Building Technology - and see it as one more milestone in the construction of sustainable floor slabs in Germany and worldwide”.



The modules can simply be joined together in rows and so form a solid structure. Source: Heinze Cobiox Deutschland GmbH

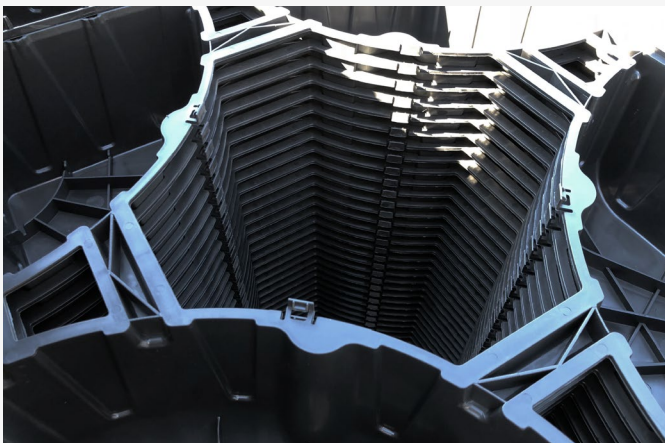




Reduced consumption of resources for floor slabs: our CLS product line is designed in such a way that it saves on reinforcement steel as well as on concrete. Source: Heinze Cobiax Deutschland GmbH

## It takes courage to leave gaps

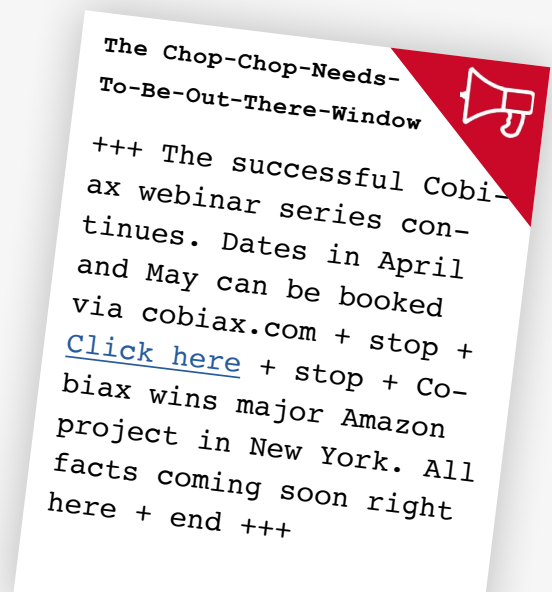
The idea of “building with gaps”, on the other hand, is not that new these days: the benefits had in fact been recognised towards the end of the 20th century, but getting the design of the void formers right, in order to achieve the required structural design properties, remained a challenge. It was Cobiax who finally found an “all-round” credible solution, through the development of spherical or ellipsoid void formers: once the concrete flows between the void formers, it forms an X-shaped concrete structure. This provides outstanding stability. “Subsequent improvements to our product lines - such as the two-part design - primarily offer benefits in terms of cost-effectiveness and applications. The requirements we have established for structural design and reduced weight of floor slabs are not affected by this. And the fact that we are providing credible performance in these areas



The X-Zone: the Cobiax secret for maximum load-bearing ability at the lowest weight. Source: Heinze Cobiax Deutschland GmbH

has now been given official backing across all Cobiax product lines,” says a delighted Wanninger.

The full technical approval is available for download from our website at [cls.cobiax.com](https://cls.cobiax.com), along with further information on the Cobiax CLS void former system.



Copyright title image: Heinze Cobiax Deutschland GmbH

Further information. The Cobiax-Experts like to help.

## SLOVENIA



Lespatex d.o.o.  
Pot k sejmiscu 30  
1231 Ljubljana Crnuce  
Slovenia  
Phone +386 5 9333 651  
vasja@lespatex.si

## UNITED STATES



Cobiax USA, Inc.  
90 Pleasant Street  
Dedham, MA 02026  
United States  
Phone +1 201 390 3188  
mrussillo@cobiaxusa.com

## FINLAND



Insinööritoimisto Sulin Oy  
Ormuspellontie 18  
00700 Helsinki  
Finland  
Phone +358 40 560 0988  
ronald.sulin@sulinoy.fi

## GREECE



ENKA Technologies  
Leof. Dekeleias 1 & Chalkidos, Nea Filadelfia  
14343 Athens  
Greece  
Phone +30 210 258 3120  
mkarantzikis@enka.com.gr

## CYPRUS



EKA Group Ltd.  
109, Eleftherias Street  
3042 Limassol  
Cyprus  
Phone +357 25 854 444  
charakis@ekagroup.com

## ALBANIA, KOSOVO, N. MACEDONIA



Heinze Consulting Sh.P.K.  
Rr. Garibaldi Nr. 7/3  
10000 Priština  
Kosovo  
Phone +383 44 743 174  
mbinakaj@heinze-consulting-shpk.com

To find more contacts in other markets, click

[worldwide.cobiax.com](https://www.worldwide.cobiax.com)