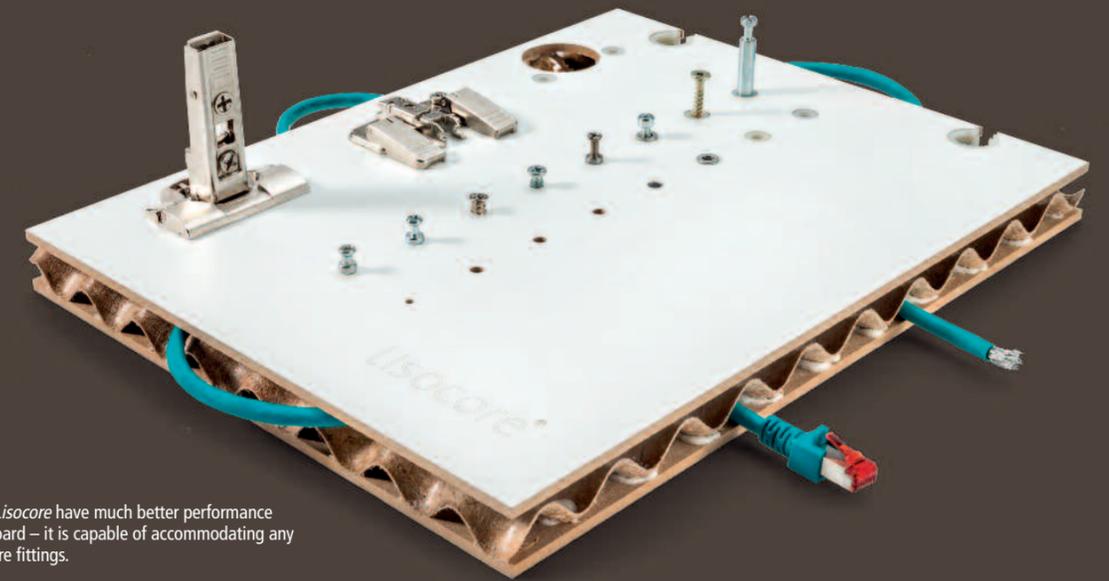


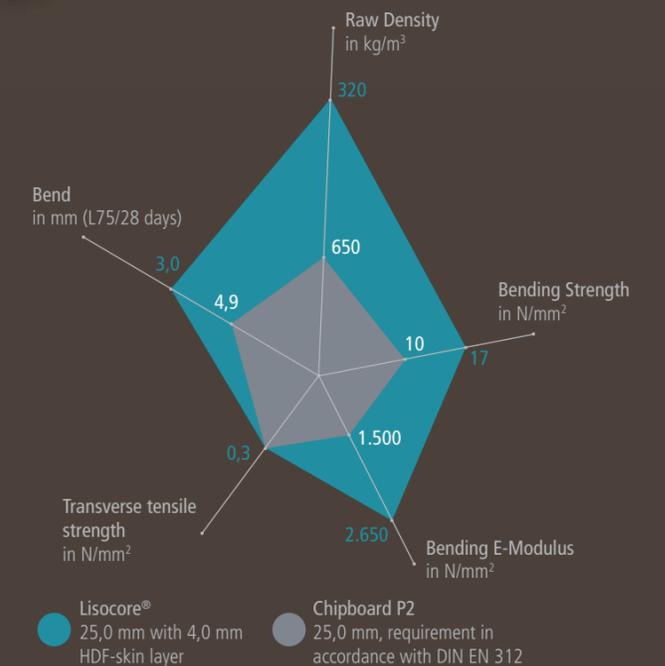
LIGHTWEIGHT MATERIAL



Not only does *Lisocore* have much better performance than the chipboard – it is capable of accommodating any kind of hardware fittings.

Whenever people in the board industry discuss lightweight materials, they usually focus on the same points: weight reduction, an ability to make stronger boards, the reduction in logistics and packing costs. The discussion is similar in many other industries such as aerospace and automobiles; everyone is keen to shed the 'kilos'. However in the furniture industry, the kilos are of less importance because where they really count are in applications such as caravans or cruise ships. In most other circumstances, it is not generally necessary to shift furniture. Obviously, light weight is a useful feature for take-home furniture. But after assembly and positioning for use at home, there is generally no need to move it again. In this respect the suggestion that lightweight furniture has advantages for the furniture manufacturer do not really hold water. Seen in this light, the new approach offered by Lightweight Solutions is highly promising. This innovative manufacturer sees lightweight construction as offering much more than 'just light'. For them, lightweight is a construction philosophy, a statement! Given this assertion, it is necessary to redefine the term as used in the furniture industry. Here, the question of weight does not stand in focus alone. Rather, as seen by Lightweight Solutions the technology must be used to animate the end-customer's interest and desire for the product. In addition, materials calling for the high use of resources and energy are not necessarily appropriate in the present age.

In every respect, their *Lisocore* product represents an intelligent alternative to earlier lightweight materials. *Lisocore* is described as a new



In addition to superb mechanical properties, Günter Weilbold praises its material working properties.

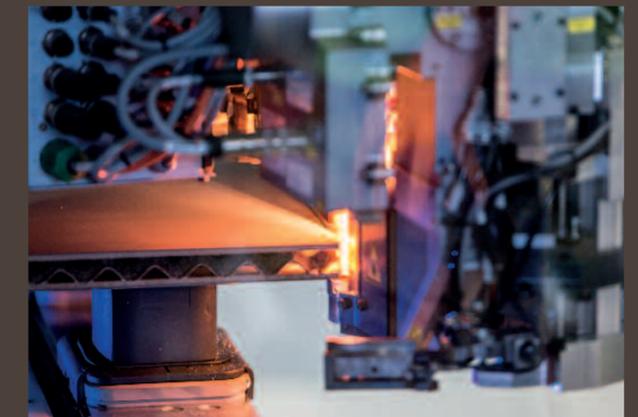
Edge-banding applies to *Lisocore* with conventional machinery and requires no edge support

Lightweight Solutions: New Products Jointly Developed With Customers

FOR A NEW SENSE OF BEING LIGHT

A material with enormous load-bearing and torsion strength, highly efficient use of raw materials, and easy production processing: the innovative *Lisocore* lightweight board from Lightweight Solutions has a lot more to offer than 'just' light weight. This board allows for the creation of totally new designs that enable a furniture manufacturer to differentiate his products completely from those of the competition. This has been ably demonstrated by the design of a new filigree table from specialist office furniture manufacturer Wiesner-Hager.

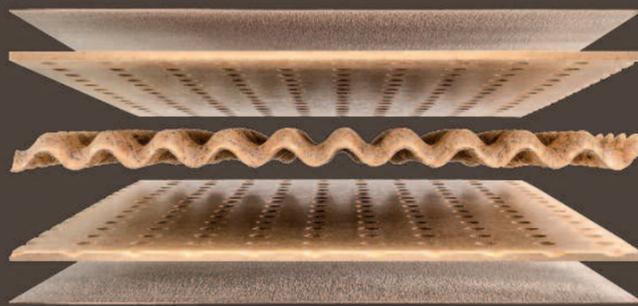
Together, finding the perfect solution: Lightweight Solutions chief executive Michael Schäpers and sales manager Marcus Wehner with WH quality manager Günter Weilbold.



LIGHTWEIGHT MATERIAL



Modern, purist furniture design: the ultra-thin *Lisocore* table top on the Yuno stacking table from Wiesner-Hager is very strong and does not bend



Scale variation: during production, *Lisocore* dimensions and mechanical properties are adjusted to meet specific requirements by changes to the outer skin, core structure and surface.

generation of material opening new perspectives for the furniture industry with respect to function and design. Meeting the requirement for the efficient use of materials, the resources needed are concentrated in the product itself. The inner structural joints are a form-fit arrangement, and located exactly at the load-bearing points. When developing *Lisocore*, Lightweight Solutions determined on a set of important and demanding requirements: the material should make efficient and responsible use of resources in production; further, it should be as energy-efficient as possible while avoiding any harmful emissions. Further, the company aimed for superb elasto-mechanical properties. Ideally, these would be better than those of classic non-cavity materials. Likewise, the working and processing properties had to be just as good as those of earlier products. *Lisocore* was the product of these considerations and uses the building-box principle to facilitate adaptation of the board to any customer requirement. This is a key factor in an era of increasing product individualisation. Lightweight Solutions always has an eye on the fact that *Lisocore* gives the customer a real advantage, without describing the advantage as reduced weight. Rather, this product enables the manufacturer to build filigree designs with a generous surfaces area, yet with enormous strength and low weight, rendering *Lisocore* absolutely suitable for modern, new, furniture designs. This innovative board material is made in a range of standard thickness from 15 mm to 120 mm, just as required by the customer. Likewise, *Lisocore* has space for integration of technical accessories such as sensors, actuators or lighting – anything goes. This represents important added value, especially in the dawning era of the 'smart home'.

Taken overall, *Lisocore* offers furniture manufacturers numerous possibilities for product differentiation and competitive advantage, for example re-positioned cupboard partitions with longer shelves. In this context Lightweight Solutions thinks much further than simply 'the board'; rather it seeks the best solution for the customer. Lightweight Solutions works with the customer to find a mutually-agreed design by means of which *Lisocore* provides a real enrichment to the product portfolio. But it is not enough just to allow for fabrication of a lighter product! The Yuno from Wiesner-Hager (WH) is a perfect example of how *Lisocore* can trump the competition and create an unusual product. The Yuno is an filigree-design stacking table requiring a table top board which, although thin, retains its shape under load. Naturally, the material should be easy to cut and shape and capable of accepting and standard surface coating materials. *Lisocore* matches all these requirements. The WH Yuno stacking table with a *Lisocore* board top is a forward-looking application, in which the main focus was not on lightweight design. The *Lisocore* table-top is only 19 mm thick and has a large surface area that is quite unsupported. Thanks to the high strength of *Lisocore*, the board bends much less than does a conventional chipboard – which is incidentally much heavier. *Lisocore* was chosen primarily to satisfy design aspects and constructional considerations. The light weight came as something of a bonus for the stacking table, for which there was also a requirement that it should be easy to handle. The WH quality manager is Günter Weilbold who said: "In addition, *Lisocore* is very straightforward to cut and shape. That is true whether you are working with a machine tool centre, edge-banding, or inserting and turning screws directly into the outer face. *Lisocore* is the only lightweight board known to us that meets and matches our global requirements for a lightweight tabletop material. In addition, Lightweight Solutions has been a very innovative development partner and supplier for us." Against this background we are not surprised that WH has already come up with a number of new table designs with Lightweight Solutions; and with more likely to follow.

@ More info: www.lightweight-solutions.de



All *Lisocore* production machinery was designed and developed in-house by Lightweight Solutions, which therefore has enormous in-depth knowledge about every aspect of the material.



WH Chief Executive Markus Wiesner

TOMORROW'S FURNITURE IS LIGHTWEIGHT

Ideas first! Whichever way you look at the problem: you must have an original idea before you can come up with a new concept or design. The next stage is to convert it into reality. The key to our success has been strict focus on the concept. Our job is to satisfy the highest-level requirements for office furniture, office consulting, interior design and building completion; and to ensure our customers are thrilled with the results. For this reason we team closely with leading designers from around the world in the search for innovative products destined for offices, events, congresses, training, seminars and health care. We are now the leaders in our home market of Austria. Of course, much of our success is thanks to having the right suppliers. Among these is Lightweight Solutions, with its knowledge, expertise and innovative skills in the lightweight materials sector.

This was underlined by their receipt of the prestigious Schweighofer Innovation Prize – as did we also a few years ago. I have always been impressed by the determination shown by Lightweight Solutions in the pursuit of its goals. They started with the revolutionary idea for *Lisocore*, followed by the design and development of special board production machinery, its subsequent construction, through to testing and further development in their in-house laboratory. Having gone thus far, the company has acquired enormous know-how, so no question goes unanswered. This is very important for an office furniture manufacturer such as ourselves, which faces global growth in requirements. The bottom line is that given the steady reduction in the availability of raw materials – and such issues as ecology and sustainability – we have to find the right solutions for our customers.

Against this background, as we see it there is no alternative than to use multi-functional and sustainable lightweight materials. These will have a major influence on tomorrow's furniture. For this reason companies such as Lightweight Solutions, who offer the right products and think in terms of complete solutions, will be the future.