

Press release

Using lava stones in cooling and freezing facilitates a quantum leap in energy efficiency

Liebherr-Hausgeräte GmbH is revolutionising technology in its fridges and freezers. Liebherr is the only manufacturer in the world to use a vacuum in conjunction with finely ground lava stone, the raw material perlite, to insulate its appliances. The first vacuum perlite models, named BluRoX, will be on the market as early as January 2023. For the very first time, it is possible to produce freezers with the energy efficiency class “A” and “B” in accordance with EU legislation thanks to the innovative technology.

Ochsenhausen (Germany), November 2022 – Until now, refrigerators and freezers have been insulated with conventional insulating materials made from petroleum-based polyurethane foam. Instead of these common foam elements, and in a world's first, BluRoX uses a vacuum in combination with finely ground perlite for insulation. Due to its crystalline microstructure, the lava stone perlite has a very low thermal conductivity, and the vacuum provides the best possible insulation in terms of energy. “For a family with a 350-litre freezer, the annual power consumption for the appliance could be reduced by up to 20 per cent”, explains Steffen Nagel, Managing Director Sales & Marketing at Liebherr-Hausgeräte GmbH. “This translates into notable savings with steadily rising electricity prices.”

The space-saving miracle: 25 per cent more space for food

The new combination of a vacuum and finely ground lava stone enables a very compact design. Due to the particularly effective BluRoX insulation, Liebherr can design the walls of a BluRoX freezer to be about one third thinner than the walls of a conventional foam-insulated appliance. For an appliance fully equipped with vacuum perlite technology, the result is about 25 percent greater capacity compared to fridges and freezers with the same external dimensions.

Lava stone: the altogether environmentally-friendly cooling wonder

BluRoX equipment is not only manufactured in an environmentally friendly manner, but also proves to be a very eco-conscious choice at the end its service life. That is due to the fact that lava stone perlite can be easily removed and re-introduced into the manufacturing cycle and therefore re-used in new equipment without significant processing. The BluRoX insulation is not bonded to the surrounding components, so the outer shell and inner container can easily be re-processed and re-used.

In addition, the lava stone perlite is a naturally renewable raw material. Only a small area is required for mining, which can then be restored to its natural state. Liebherr sources perlite from Europe and then processes it at its production site in Ochsenhausen and uses it in equipment with BluRoX technology.

Available from January 2023: a BluRoX hybrid appliance

In January 2023, Liebherr-Hausgeräte will launch the first freezer with BluRoX technology in the door. The walls of this FNb 5056 hybrid model are insulated with conventional foam insulation. As the first of its kind, this model will have efficiency class “B” in accordance with the new EU energy label. This will be followed over the next two years by the first BluRoX freezer fully equipped with vacuum perlite technology, which will be even more energy-efficient while offering the full space benefits this technology allows.

Liebherr's world first is based on ten years of research and the company's patented technology. “With BluRoX, we are fulfilling the wish of a growing number of consumers who want to make their everyday lives more sustainable, save energy, and conserve resources,” states Steffen Nagel. “These new BluRoX freezers are extremely energy-efficient, recyclable, and retain the usual Liebherr ‘Made in Germany’ quality – they are going to be real customer magnets.”

About Liebherr-Hausgeräte GmbH

Liebherr-Hausgeräte GmbH is one of eleven divisional controlling companies of the Liebherr Group. The appliances division employs more than 6,500 staff and develops and produces a wide range of high-quality refrigerators and freezers for the domestic and professional sectors at its headquarters in Ochsenhausen (Germany) and in Lienz (Austria), Marica (Bulgaria), Kluang (Malaysia) and Aurangabad (India).

About the Liebherr Group

The Liebherr Group is a family-run technology company with a broad and diverse range of products. The company is one of the largest manufacturers of construction equipment in the world. However, it also provides high-quality, user-oriented products and services to many other sectors. Today the group comprises over 140 companies from every continent. In 2021, it employed more than 49,000 staff and generated total revenue of over €11.6 billion. Liebherr was founded in 1949 in the southern German town of Kirchdorf an der Iller. Since then, its goal has been to win over its customers with sophisticated solutions and contribute to technological progress.

Images



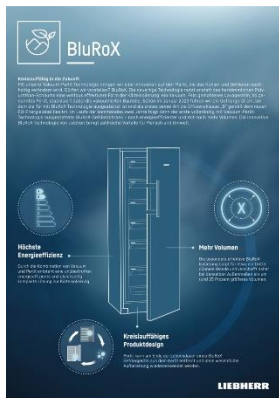
Liebherr-BluRoX-FNb5056-Ambient.jpg

The first vacuum perlite models, named BluRoX, will be on the market as early as January 2023.



Liebherr-BluRoX-FNb5056.jpg

The FNb 5056 freezer will be the first hybrid model whose door is equipped with BluRoX technology.



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The patented BlueRoX technology offers many advantages.

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Published by

Liebherr-Hausgeräte GmbH

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