

Leier

www.leier.eu



Leier | *Durisol*
**ENVIRONMENTALLY
CONSCIOUS BUILDING**



APPLICATIONS FOR

BUILDING CONSTRUCTION

- » Excellent heat storage capacity
- » Optimal for regulation of the indoor humidity
- » Excellent heat and sound insulation



NOISE PROTECTION

- » Excellent sound absorption and sound insulation
- » Easy, quick mounting of the prefabricated elements
- » Weather-resistant, frost and salt resistant and resistant to all environmental influences



LEIER DURISOL

SOLUTIONS FOR HOME & GARDEN

HIGH SEEDBEDS

- » simply practical
- » easy construction
- » flexible layout



WINE SHELF-SYSTEM

- » safe storage of the wine bottles
- » easy construction, visually appealing
- » individual design options



A BUILDING MATERIAL THAT REGROWS!

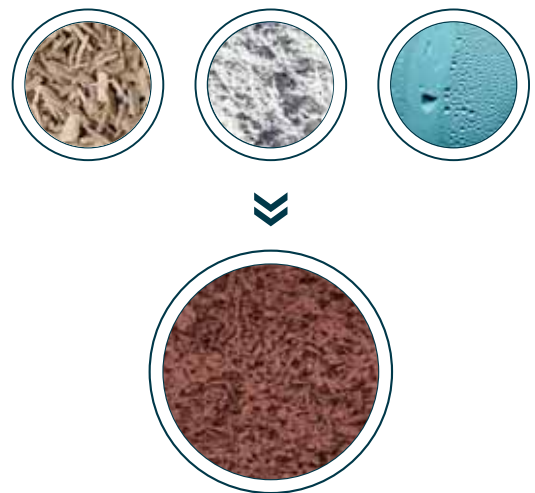
WHAT IS DURISOL?

When building a house the choice of the right building material is crucial. This choice should be carefully examined under the aspect of sustainability as well as quality and securing the value for several generations.

The eco-construction system with Leier Durisol products is ideally suited for these criteria. Since 1934, a new, natural building material called Durisol has enriched the building sector so that Durisol has not only been used with great success to these days, but is also being produced and processed all over the world.

The Leier company is in possession of the licenses to produce and sell Durisol products since 2010.

woodchips + cement + water



THE ADVANTAGES OF DURISOL

The Leier Durisol system combines all the benefits of wood and concrete. It has excellent heat and noise protection and has a very good heat storage ability in winter. In summer however, the rooms stay pleasantly cool due to the solid Durisol walls. Durisol also ensures with its porosity excellent diffusion properties, indicating a naturally balanced, pleasant and healthy indoor climate.

The system structure of the thermally insulated Durisol blocks with the integrated, excellent thermal insulation and having inside the concrete core as a massive heat storage leads to significant savings in heating or cooling costs. Thus, the Leier Durisol system is the ideal building material for every climate and every season! Durisol is a natural product, a building material that is 100% recyclable.



THE MANUFACTURE OF DURISOL

Leier Durisol, with its excellent properties, is a product of natural softwood, as it is abundantly produced by nature or obtained as the remainder of wood in woodworking. In a special process, these wood chips are treated by mineralization and mixed with water and cement. This mixture is then pressed into block molds, compacted and dried in air. Thus the manufacturing process runs extremely energy-saving and without exhaust emissions.

After natural drying, the blocks are milled and ground to their exact dimensions. Depending on the structural-physical requirements of the planned building construction, Leier Durisol stones differ in their dimensions and characteristics. Whether single-family houses or residential buildings, office buildings, production or industrial buildings, noise barriers, high seedbeds and wine racks: Whoever decides to use the eco-construction system by Leier Durisol, settles for energy-saving and sustainable building in harmony with nature.



BUILDING CONSTRUCTION

Leier Durisol building blocks perfectly fulfill the principles of environmental awareness and energy efficiency, both during production and when installed, for the user.

A house with Durisol walls guarantees an extremely pleasant living climate. The solid wood construction material optimally regulates the air humidity through its vapor diffusion properties, which leads to a pleasant sense of well-being and good health.

Structures made of Leier Durisol bricks are also considered earthquake-proof. The stones are filled with concrete and, depending on the static requirements, can also be reinforced.

In any case, the combination of the concrete grid in the interior of the wall and the intertwined, mineralized wood chips guarantee the compactness and stability of the building.

Energy efficiency on one hand means a resource-conserving production of a building material, on

the other hand a low energy requirement and therefore low energy costs when using the building. Both apply 100% to Leier Durisol building materials.

A building physics study has shown that in a residential building with 30 residential units built with Durisol, between 80 and 110 t of CO₂ are saved compared to other common solid building materials, provided the same thermal insulation values are kept in the buildings.

Due to the solid concrete core, Durisol stones are mostly used as load-bearing masonry. Exterior and interior walls, apartment and staircase partitions, fire walls, brace walls, terraced house dividing walls, etc. Durisol provides a suitable alternative for every need.

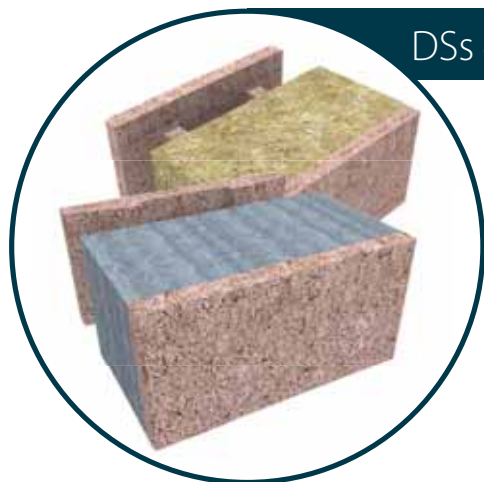
Durisol stones are light and are built without mortar. Only 8 pieces per m² of wall cause a very rapid construction progress. In addition, complete Durisol wall elements offer even greater time savings.

Durisol hollow walls - the faster version

- » Time saving
- » No cutting of fitting parts
- » High-level concreting



NEW BLOCKS



DSs 45/12 L



DSs 30/12 L

DURISOL CONSTRUCTION ELEMENTS: REVIEW OF ELEMENTS



DMi 15/9 L

length	wall thickness	heights
50 cm	15 cm	25 cm



DMi 25/18

length	wall thickness	heights
50 cm	25 cm	25 cm



DSs 45/12 L

length	wall thickness	heights
50 cm	45 cm	25 cm



DMi 17/12 L

length	wall thickness	heights
50 cm	17 cm	25 cm



DS 35/20

length	wall thickness	heights
50 cm	35 cm	25 cm



DMi 31,5/18

length	wall thickness	heights
50 cm	31,5 cm	25 cm



DMi 20/13

length	wall thickness	heights
50 cm	20 cm	25 cm



DSs 30/12 L

length	wall thickness	heights
50 cm	30 cm	25 cm



DSi 38/18

length	wall thickness	heights
50 cm	38 cm	25 cm

NOISE BARRIERS

Noise barriers have now become indispensable along motorways or other high-traffic roads, railways and all sources of noise. Steadily increasing traffic volume leads to a threatening “noise annoyance” of ever more habitat and residential areas, whereas it is proven that noise, in particular traffic noise, represents a large health burden for the population.

For this reason Durisol noise barriers are being built for over 20 years. Due to the continuous development of these Durisol noise barriers with regard to their acoustic properties and technical designs, today they far exceed all requirements.

A Leier Durisol noise barrier is not only a product manufactured environmentally friendly, but also provides the highest level of sound insulation, sound absorption, is weather and de-icing resistant, resists highway stone impacts, etc. In addition, this system provides many coloring and design possibilities.

Durisol is a specially compacted building material consisting of mineralized woodchips and cement. Woodchips is a natural product or a secondary raw material and therefore the principle of environmental protection in this construction



material is included already in the manufacturing process. The woodchips, compacted with special technology, surround a solid concrete core, which makes Durisol stable and resistant. Due to its excellent structural properties, this building material not only absorbs the noise but also largely prevents the passage of the sound waves to the protected side. The noise barrier made of Durisol not only reduces airborne noise, but also absorbs a large part of the incident sound load.

These wall panels with unique acoustic properties are vandal-proof.





BENEFITS OF THE PRODUCT

- excellent sound insulation
- does not mold
- has a long Fire resistance
- is made of environmentally friendly materials
- simple, fast installation thanks to prefabricated technology
- resists the harmful effects of weather and environment
- is chemically neutral, does not corrode
- is vandal-proof, has a 13 cm thick reinforced concrete core
- various surface, pattern and color variations are applicable
- a life expectancy of 40 years has been proven

RECOMMENDED TO BE USED

- in residential areas
- at public facilities (kindergardens, educational institutions, municipal buildings),
- at office buildings
- at common areas, parks, playgrounds, restaurants
- along highways, other roads, railways, railway stations and airports
- around industrial parks



SOLUTIONS FOR HOME AND GARDEN – HIGH SEEDBEDS

High seedbeds are widespread in the countries of Western Europe and the United States of America and are commonly used.

The essence is that cultivated plants are cultivated in „cassettes“ of about table height, not infrequently also ornamental plants are planted in the high seedbeds. The method is as common in family gardens as in schools or social homes.

The high seedbeds also allow planting where it would not be possible otherwise, for example due to the given soil quality. Plants in the high seedbeds show a stronger development, grow faster and yield in less time than their counterparts, which are cultivated in a traditional way.

TECHNICAL ADVANTAGES OF HIGH SEEDBEDS

- a near-natural solution
- no additional heat insulation necessary
- easy to set up
- there is no complicated foil insert
- no substructure or foundation required
- flexible design
- dark color absorbs sunlight better
- easy to build shapes
- no corrosion

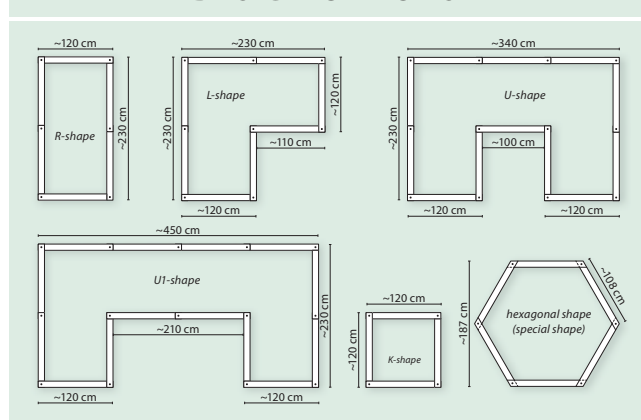


Due to the faster growth, there is no need for chemical plant protection, mixed cultures thrive beautifully next to each other.

With its unique design, the high seedbed can be built on small areas and even in areas where no cultivation is possible. The great advantage is that the construction allows gardening without bending down, without squatting, but working in an upright position, or even seated.

Because of the mixed plant population, plants grow faster, become stronger, and therefore do not require chemical plant protection products, providing the direct route to organic production.

DESIGN OPTIONS



Further information on www.leier.eu

WINE RACK SYSTEMS

Wine rack sets are made of Durisol, that means, **of cement-bound, mineralized woodchips, i.e. of an environmentally friendly building material.**

The aesthetic wine rack elements are suitable for every type of wine cellar. Durisol harmonizes perfectly with the traditional brick walls and also makes modern, bare cellars more friendly.

The wine racks made of the Durisol elements have a long life and offer more safety during storage than wood constructions.

They are chemically completely neutral, so they do not corrode. Of course, these outstanding features give a longer life than other comparable products.



Due to the composition of Durisol elements, the wine racks are resistant to harmful environmental influences, allowing not only an aesthetic appearance but also a safer storage.

From elements of different sizes and shapes, wine racks can be easily combined to best suit your needs. The larger and smaller compartments of the Durisol elements fit perfectly together and provide a completely secure hold. The small weight of the boxes allows an easy modification of the wine racks.

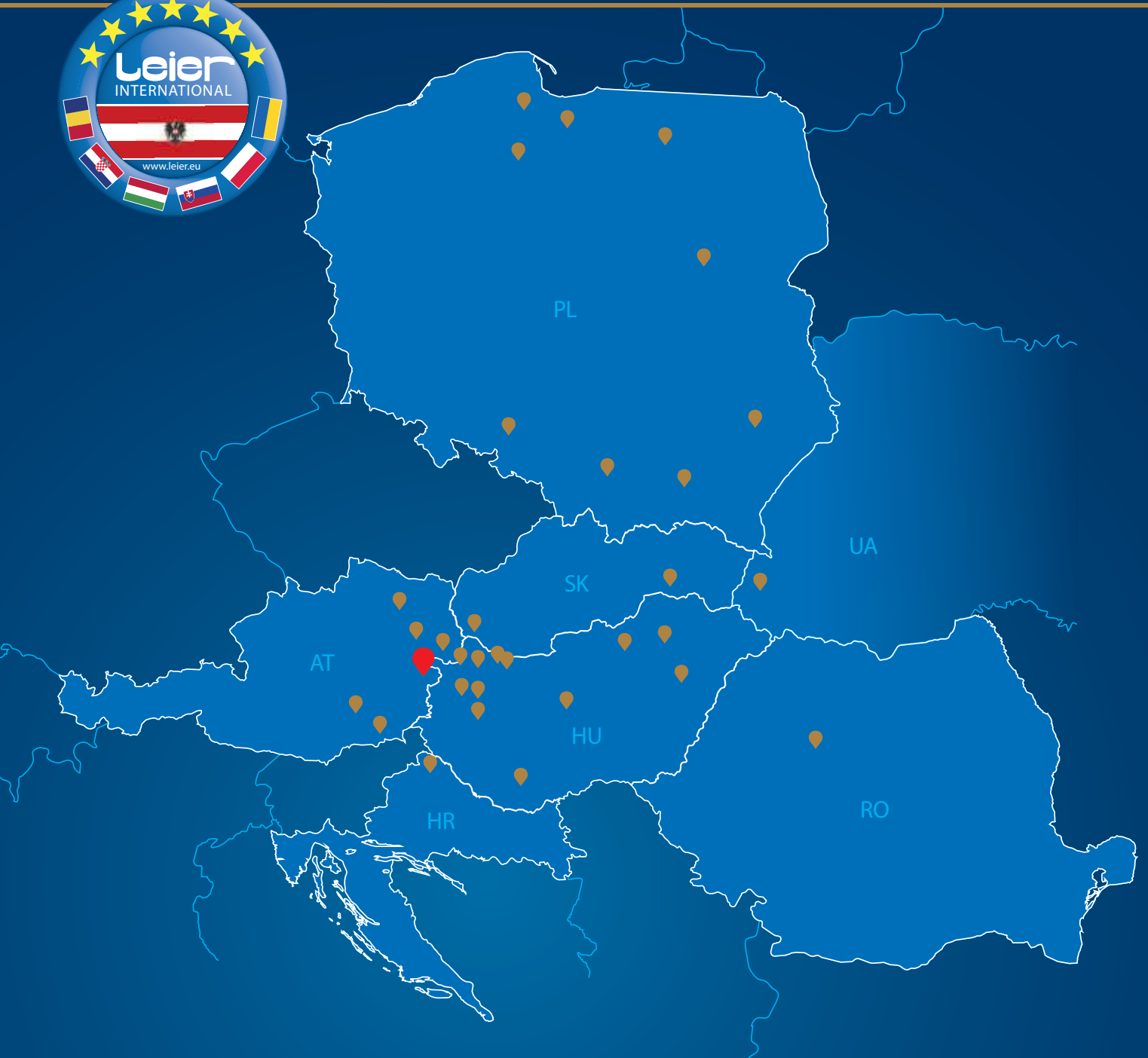
According to the consensus of the satisfied customers, the biggest advantage of Durisol wine racks - in addition to the eco-friendly manufacturing and unrivaled beauty - is that they can be put together as desired. The wine racks are easy to expand according to the size of the stored quantity, and to convert or to rebuild according to the space capacity.

No special prequalification is required to install and assemble Durisol wine storage systems from Leier. **These are designed in such a way that they are easy to put together for everyone.**





ADVANTAGES OF DURISOL WINE RACKS

- environmentally friendly raw material
- protection against mold
- safe storage
- aesthetic appearance
- easy to move elements
- variety of options as desired
- extensions possible

Further information on www.leier.eu



The **Leier Group** has always been in her history a leader in the field of innovation and a staunch representative of sustainable development. We are consequently working to develop and to improve our closer and wider environment.
Be our partner in this endeavor!

-  **Leier Durisol**,
with the naturalness of the wood and
the power of the concrete
-  **Leier bricks**,
the traditional natural building material
-  **Leier pavement stones and plates**,
the environmentally friendly solution
-  **Leier environmental technology**,
for a broad environmental awareness

Leier

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write to info@leier.at.