Leca®

Light Expanded Clay aggregate

Leca Company Profile Blocks

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SRUSHTI SEWAN COMPANY For General trading & Industries / LTD

WARANY FACTORY

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Leca
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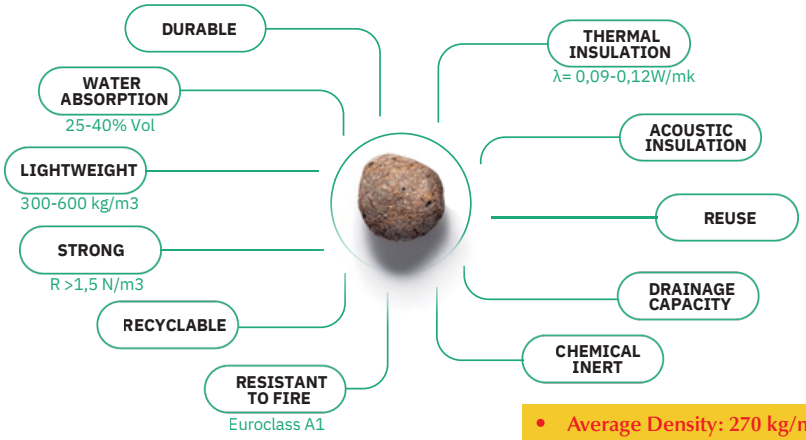
About Leca

Leca is the initial letters for light-expanded clay aggregate. Expanded clay aggregates are porous ceramic products with a uniform pore structure of closed cells and with a densely sintered, firm external skin. It is manufactured in rotary kilns from raw materials containing clay minerals. The raw material is prepared, molded, and then subjected to a firing process at temperatures of between 1,100 to 1,200 C°, resulting in a significant increase in volume due to explosion. the LECA grains' internal cellular structure with thousands of air-filled cavities gives thermal and sound insulation properties.



- Average Density: 380 kg/m³
- Maximum Density: 400 kg/m³

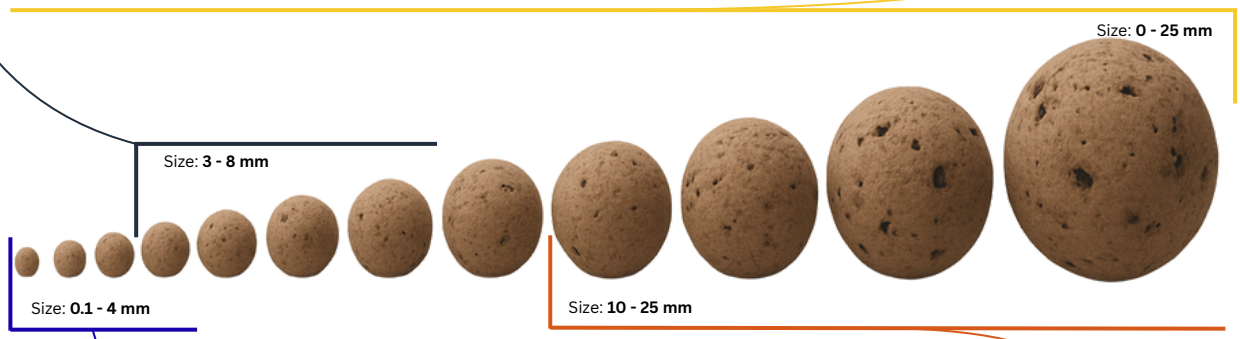
Size: **3 - 8 mm**

- Applications
  - Lightweight concrete production
  - Manufacturing of lightweight blocks
  - Precast concrete elements
  - Hydroponic cultivation
  - Decorative applications in landscaping and indoor planters

- Average Density: 270 kg/m³
- Maximum Density: 320 kg/m³

Size: **0 - 25 mm**

- Applications
  - Lightweight infill concrete
  - Water and wastewater filtration systems
  - Drainage solutions in construction
  - Agricultural use, including hydroponics, greenhouse crops, and decorative plant pots



- Average Density: 510 kg/m³
- Maximum Density: 560 kg/m³

Size: **0.1 - 4 mm**

- Applications
  - Lightweight concrete production
  - Manufacturing of lightweight blocks
  - Precast concrete elements
  - Lightweight fill material
  - Leca Readymix masonry mortar
  - Agricultural water treatment, including hydroponic systems

- Average Density: 250 kg/m³
- Maximum Density: 300 kg/m³

Size: **10 - 25 mm**

- Applications
  - Lightweight infill concrete
  - Water and wastewater filtration systems
  - Drainage solutions in construction
  - Agricultural use, including hydroponics, greenhouse crops, and decorative plant pots

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Certified ISO company
9001, 14001

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Improving Living Conditions and Protecting the Environment

Our Values

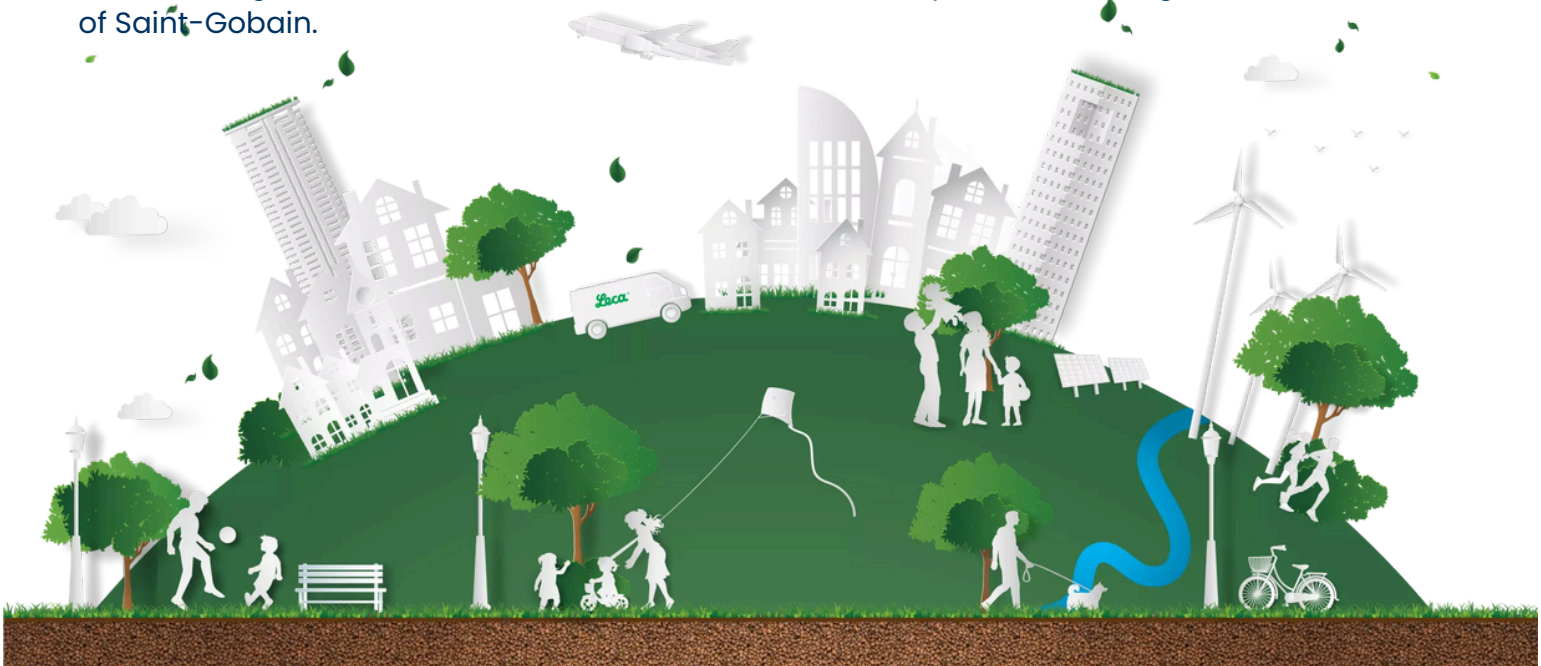
Together we build for the future, working closely with suppliers, partners and customers. We are committed to protect the environment. Leca® LWA is a natural product, with a number of environmental benefits in the complete project life cycle from transport, application, "living" and reuse. While Leca® LWA is a simple product, our solutions are innovative and sustainable.
LECA has been around for a long time, so we know that our product works – and lasts. And with experienced knowledge of our production process, focus on innovation and a strong commitment to our customers we know our values.

Our Mission

Our mission is to reduce our carbon footprint focusing on our industrial processes, knowing the values of the product when applied in housing, infrastructure and water management projects.
Our innovative products and solutions will positively contribute to the challenges of climate change emphasizing the future living conditions.
For the benefit of the environment and for everyone, everywhere.

Our Vision

We actively take responsibility in protecting the environment, producing and delivering resource efficient products with a specific focus on our sustainable footprint.
Our products positively contribute to our living conditions by reducing the negative impact from climate change and will also clean and filter the water of tomorrow.
Our challenge is to become net-zero carbon emissions by 2050, following the commitments of Saint-Gobain.



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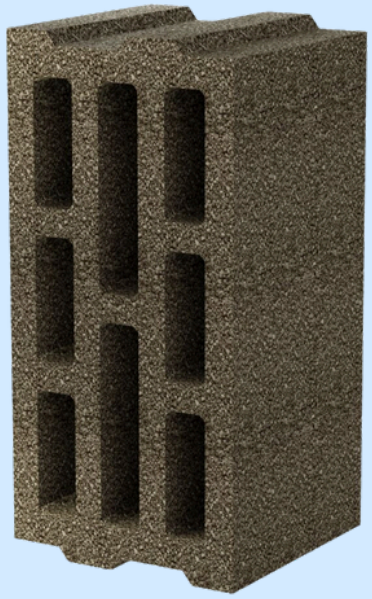
Leca building blocks' properties



Leca building blocks are produced by mixing Leca with cement, sand, and water. the blocks are cast in normal block making machines that compact and vibrate the concrete in one single operation.

Leca block is ideal for all types of exterior / interior walls and suitable for any physical operations such as cutting, nailing, transfixing, or screwing. Also ridge extending to make proper route for wire pipe and other installing components without any cracking on the surface material.

It has all workability of normal block and does not have any limitation of other lightweight blocks.

1 Lightweight and Rigid:

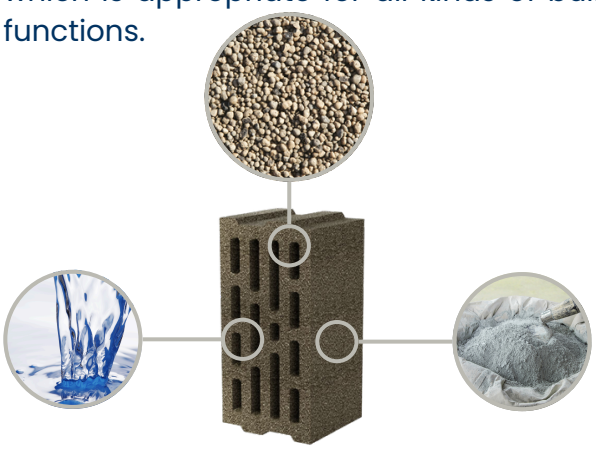
Leca blocks are supplied in block compressive strength class of 2.5 to 3.5 MPa as per American and Euro standard with a normal dry density of 600 - 800 Kg/m³

2 Minimal Water Absorption:

The absorption of moisture by Leca building blocks is minimal and as per standards. The block structure with large pores between the Leca grains forms effective protection against absorption.

3 Sound Insulation:

With advanced acoustic specifications, Leca sound insulation superiors other building materials. Sound insulation of a one layer of Leca block wall will range from 46 to 53 dB, which is appropriate for all kinds of building functions.



4 Fire Resistance:

Leca building blocks are non-combustible and are to be considered as class A1 in reaction to fire (No contribution to fire).

5 Shaping:

The best tool for dividing and shaping the Leca building blocks is a carbide-tooth saw. Minor jobs can be accomplished using an axe or masonry hammer. Leca blocks are quickly divided using a standard block cutter

6 *Thermal Insulation*

Leca aggregates insulate with low thermal conductivity could be used in many products such as block, grout, etc. to increase thermal resistance of products. Leca does not deteriorate with time, so it is a perfect basic material to be used in the creation of permanent thermal insulation elements. Despite of other lightweight and insulating materials with up to 80% whether absorption, Leca water absorption is limited to 18% of its weight, which means that its thermal conductivity will not increase owing to moisture content.

The accumulation of heat in inner-leaf walls and partitions made of building blocks make a major contribution to the creation of a pleasant indoor climate by neutralizing temperature fluctuations by sunshine or ventilation,

7 Surface Treatment:

The low moisture absorption and large surface pores made Leca blocks suitable for rendering and plastering by both manual and mechanical means.
Leca plaster including Leca has great advantages in outer and inner walls.

8 Inorganic:

Leca building blocks are inorganic and not susceptible to attack by dry-rot, wet-rot, or insect.

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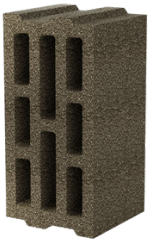
10 x 19 x 39 Cm
4.3 - 4.5 Kg
Fire Resistance Grade: A1
NRC = 46-51 dB
Thermal Conductivity = 0.07 W/m.k

19 x 19 x 39 Cm
6.9 - 7.1 Kg
Fire Resistance Grade: A1
NRC = 46-51 dB
Thermal Conductivity = 0.07 W/m.k

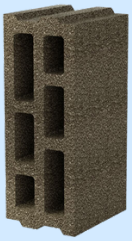
12 x 19 x 39 Cm
4.4 - 4.6 Kg
Fire Resistance Grade: A1
NRC = 46-51 dB
Thermal Conductivity = 0.07 W/m.k



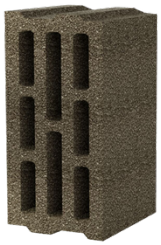
19 x 19 x 39 Cm
7.9 - 8.1 Kg
Fire Resistance Grade: A1
NRC = 46-51 dB
Thermal Conductivity = 0.07 W/m.k

12 x 19 x 39 Cm
5.1 - 5.3 Kg
Fire Resistance Grade: A1
NRC = 46-51 dB
Thermal Conductivity = 0.07 W/m.k

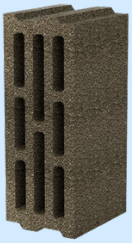
19 x 19 x 39 Cm
8.6 - 8.8 Kg
Fire Resistance Grade: A1
NRC = 46-51 dB
Thermal Conductivity = 0.07 W/m.k



15 x 19 x 39 Cm
5.8 - 6.0 Kg
Fire Resistance Grade: A1
NRC = 46-51 dB
Thermal Conductivity = 0.07 W/m.k



24 x 19 x 39 Cm
9.3 - 9.5 Kg
Fire Resistance Grade: A1
NRC = 46-51 dB
Thermal Conductivity = 0.07 W/m.k



15 x 19 x 39 Cm
6.5 - 6.7 Kg
Fire Resistance Grade: A1
NRC = 46-51 dB
Thermal Conductivity = 0.07 W/m.k

19 x 19 x 39 Cm
13.2 - 13.4 Kg
Fire Resistance Grade: A1
NRC = 46-51 dB
Thermal Conductivity = 0.07 W/m.k

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References

We are proud to have supplied a wide range of high-quality Leca Blocks and Ready-Mix materials to numerous construction projects across the country.

Baghdad

Bawabat Al-Iraq
25,467,845 Blocks

Al-Utaifyah Towers
1,194,150 Blocks

Marina Towers
1,217,489 Blocks

Al-Abasaly Towers
460,877 Blocks

Al-Hadi Towers
553,283 Blocks

Rihab Al-Sakani
345,936 Blocks

Al-Yarmouk City
855,000 Blocks

Sulaymaniyah

Derw City 1
51,245 Blocks

Dli Shar
1,772,256 Blocks

Pak Towers
486,438 Blocks

Qaiwan Heights
807,666 Blocks

Dina City
792,342 Blocks

Titanic Towers
908,132 Blocks

Erbil

Ganjan City
2,387,777 Blocks

Zanyari Tower
576,686 Blocks

North Holland
805,680 Blocks

Kalar

Dream Land
259,458 Blocks

Marina Towers
385,454 Blocks

Shari Mamostayan
541,565 Blocks

Duhok

Prime Village
11,055,381 Blocks

Marbella Towers
1,659,426 Blocks

Rummadi

Al-Dallah Residential
503,553 Blocks

*** Multiple types of blocks were used for each of the projects**

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We strive for more sustainability

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LECA Lecapon

LECA Dry Leca Ready Mix