

Träullit Exterior Walls

For more sustainable and functional constructions

Träullit has manufactured exterior walls for natural and energy-effective buildings for more than 70 years. With characteristics like thermal insulation, heat storage, fire protection, mechanical strength, and resistance to mold and rot, Träullits exterior wall products contribute to functional constructions with comfortable, healthy and sustainable indoor climates – today and tomorrow.



Build with the laws of nature.

Träullit refines Swedish timber from a flourishing countryside to renewable wood wool. Our material is eco-friendly and sustainable, consisting of wood wool from Swedish spruce, water, and cement — nothing else.

With characteristics like heat accumulation, moisture regulation, sound absorption, fire protection, our products contribute to a comfortable, healthy, and sustainable atmosphere, today and tomorrow.

Sustainable, functional, organic.
Since 1946.



Sustainable, functional, organic. Since 1946.



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For updates

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Träullit is completely free from toxicants, chemicals, and synthetic components. It consists of wood wool from Swedish spruce, water, and cement – nothing else.

The cement-bonded wood wool products of Träullit are made from natural ingredients. Wood wool from Swedish spruce, a remarkable produce springing from the deep and thriving forests surrounding Träullits production in southern Sweden, that is bonded with fresh water and cement. The result is a homogenous, natural, and versatile building- and decorative material providing an abundance of functional characteristics.

The combination of wood wool and cement creates an airy, thermally insulating, and sound-absorbing structure as well as the provision of fire resistance, moisture persistence, and mechanical strength. The material has an open surface structure that continuously absorbs and emits moisture into the air - an ability that balances the relative humidity and contributes to a pleasant indoor climate that is beneficial for both comfort and health. Träullit accumulates heat which is released when air temperatures fall. This creates a comfortable indoor climate with minor fluctuations in air temperature, contributing to lower energy costs and a reduced environmental impact. Its high pH provides resistance to mold and rot, and the material composition results in a coarse surface structure that is an excellent foundation for mineral plasters.

Träullit is the first eco-labeled building material in Sweden. It has no emissions, is recyclable, and is environmentally friendly. Shortly put, it is sustainable, functional, and organic.



Heat-storing

Insulating

Heat-accumulating

Moisture-balancing

Fireproof

Resistant to mold and rot

An excellent foundation for mineral plasters

Mechanically strong

Free from toxicants and synthetic components

Certified and environmentally declared

Renewable

Sustainable, functional, and organic





Träullit Wall Element

For more sustainable, functional, and eco-friendly buildings and constructions

Träullit Wall Element is a unique prefabricated building system of cement-bonded wood wool that offers the market a homogenous and insulating exterior wall with many functional characteristics. Träullit Wall Element has a superior heat accumulation. It stores heat that is emitted when the air temperatures fall, contributing to a consistent, comfortable indoor climate without fluctuations in air temperature and with lower energy costs as a result. In addition, the product offers excellent thermal insulation, sound absorption, resistance to fire, mold, and rot, solid mechanical strength, and provides a great foundation for mineral plasters.

The wall elements are customized for every project and are precast at Träullit's factory. It allows for a very swift construction period, meeting the increasing demands for industrialized modes of construction. Träullit Wall Elements are well suited for villas, schools, sports centers, venues, and office buildings.

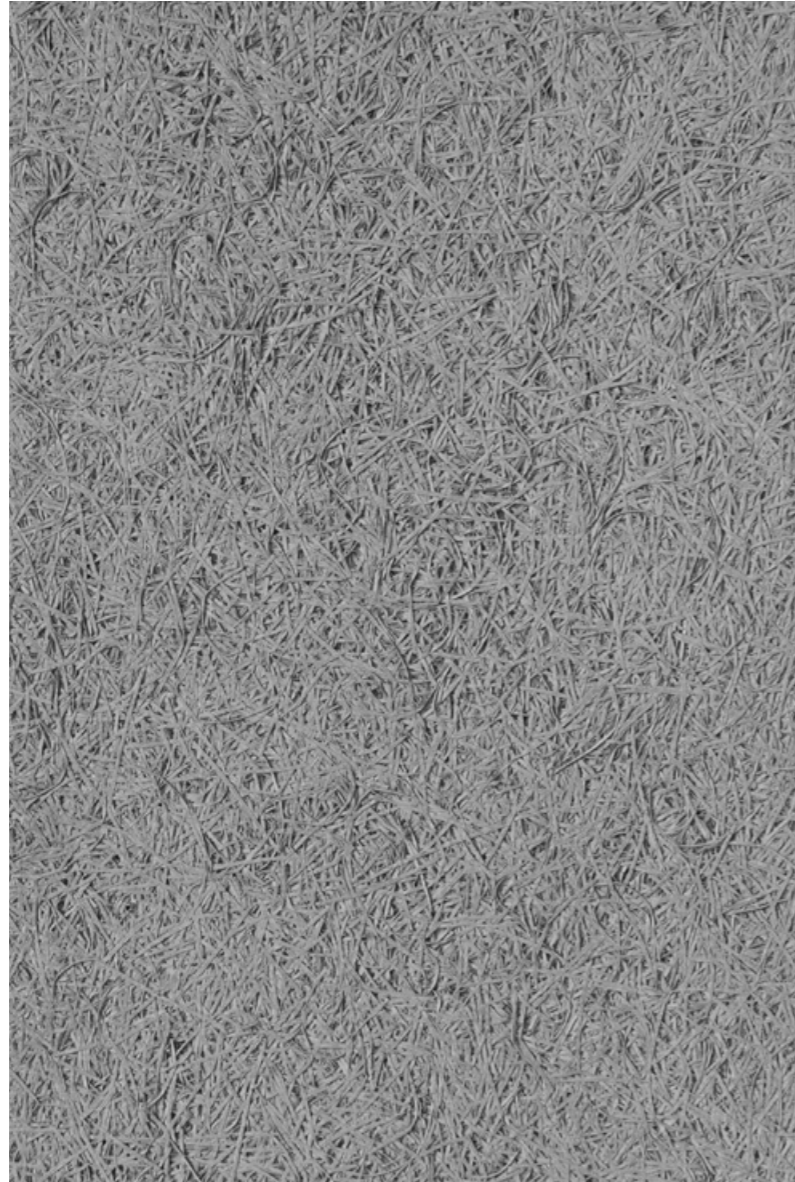




Träullit Wall Element

400 mm thickness

2600 mm



2400 / 6000 mm

Träullit Wall Elements are available in the standardized formats specified above. The products can also be manufactured in customized dimensions with a maximum measurement of 2600 x 6000 mm.



Träullit Wall Elements are customized and pre-cast at Träullits production center according to unique the specifications of each project. The walls are then installed and cast-in-place in less than a day, resulting in a very time and cost-efficient construction.



Träullit Wall Element

Träullit Helväggselement is a prefabricated exterior wall construction that combines excellent thermal insulation, mechanical strength, resistance to fire, mold, and rot with a very cost- and time-efficient construction period. The result is a homogenous exterior wall with many functional characteristics at a low total cost.

Thermal insulation and heat accumulation

Träullits thermally insulating and homogenous exterior walls have been utilized in the construction of natural and energy-efficient houses for more than 70 years. The cement-bonded wood wool walls offer outstanding thermal energy storage and heat capacity that contribute to a comfortable indoor climate with balanced air temperatures year-round. Enjoy a warm and restful home during the winter and a cool and tranquil one during the summer, with reduced energy consumption and lower heating costs.

For comparisons of U-values and the capacity for thermal energy storage of various materials and exterior wall products, see the table below.

	W/m ² °C	kJ/m ² °C
Mineral wool/stud	0,14	65
Träullit Wall Element	0,16	240
Lightweight concrete	0,28	210
Light expanded clay aggregate	0,50	255

Comparisons of U-values and thermal energy storage capacities.

Time and cost-efficient constructions

The cement-bonded wood wool wall elements are prefabricated at Träullits factory according to the unique and individual specifications of each project. The walls are then installed and cast-in-place in less than a day, resulting in a very time and cost-efficient construction period. The finished product is a natural and homogenous exterior wall with exceptional characteristics at a low total cost.

Best fire classification available

The bonding agent in Träullit Wall Element, cement, adds strength and solidity to the material and contributes to its very high resistance to fire. Träullit Wall Element holds the best fire classification available, REI360, and can withstand full fire for up to six hours.

Resilient and mechanically strong

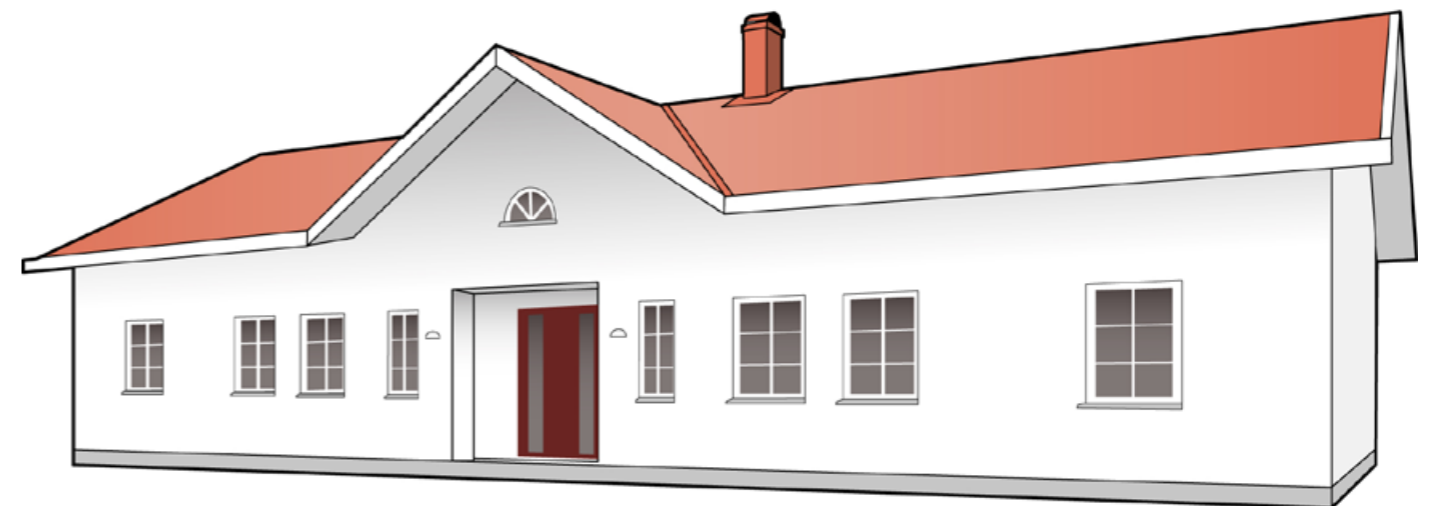
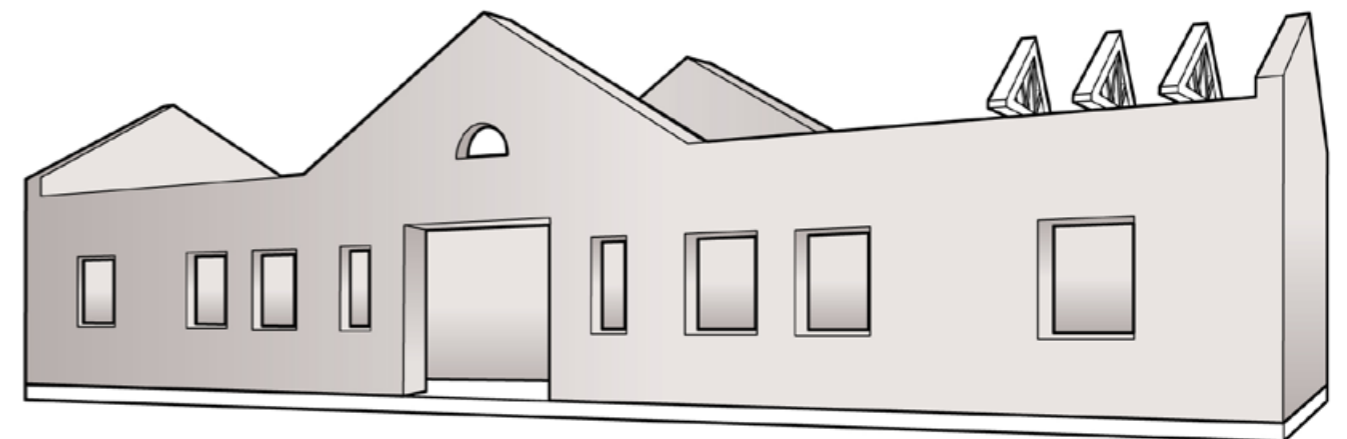
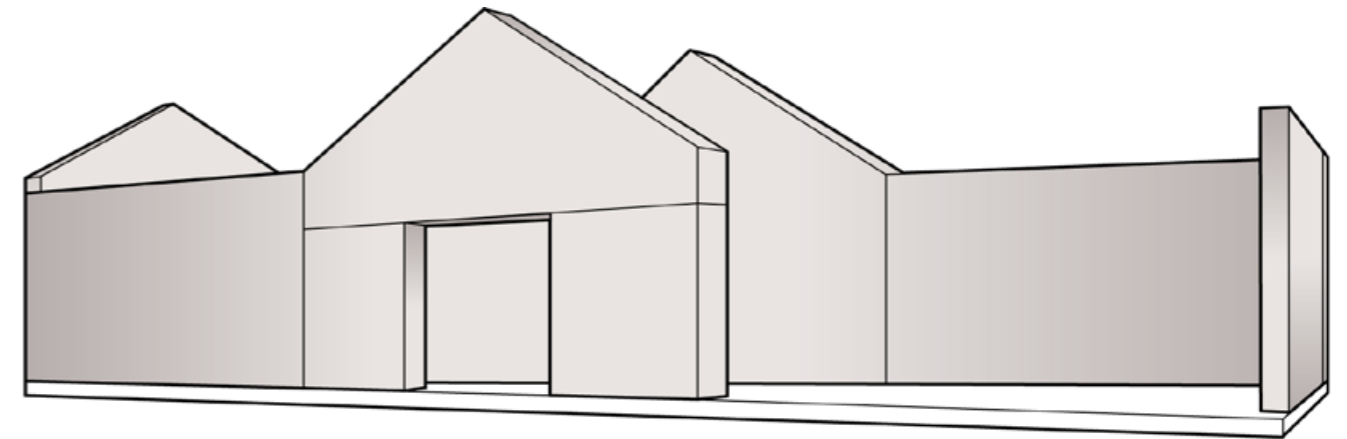
Träullit Wall Elements does not contain closed cells. It has an effective moisture diffusivity and air permeability and can be saturated with rainwater and dried without compromising its characteristics. This, in combination with its high pH, makes it very resistant to moisture, frost, mold, or rot. The bonding agent, cement, provides solidity and an impact-resistant surface that withstands external influences.

Thanks to its mechanical strength, Träullit Wall Elements is a more firm and robust base for plasters when compared with other insulating materials. Its coarse surface structure is perfect for applying plaster, but can also hold any desired exterior wall cladding.

Organic and eco-friendly

Träullit Wall Elements are organic and renewable products, completely free from synthetic substances and toxicants, with low emissions. The material is composed of locally grown and harvested Swedish spruce, water, and cement – nothing else.

Environmental declarations, certificates, quality policies, and information regarding Träullits products and production are available on our website, www.traullit.se.



Träullit Wall Elements allow for industrial construction as they are delivered prefabricated in customized dimensions.

The walls are installed and cast into place in less than a day, resulting in a very time- and cost-efficient construction. This, combined with the many functional characteristics of the material, results in a highly functional and versatile exterior wall at a low total cost.



Villa Hellstrand, Sommen.
Year: 2019.

Villa Hellstrand is a classically Scandinavian-themed villa built with Träullit Wall Elements plastered with bonding plaster in a crispy white color. The Wall Elements were chosen for the many functional characteristics they offer and the positive effects they provide to the indoor climate.



Villa Torslanda, south Bohuslän.
Year: 2020.

For their superior insulation and thermal energy storage capacities, Trällit Wall Elements was chosen as the exterior wall construction for this breathtaking villa located on the west coast of Sweden. The walls were clad in a wooden panel with treated spruce, adding a rustic and native Scandinavian expression that seamlessly blends in with the surroundings.



Träullit Compact Element



For smaller houses and compact constructions

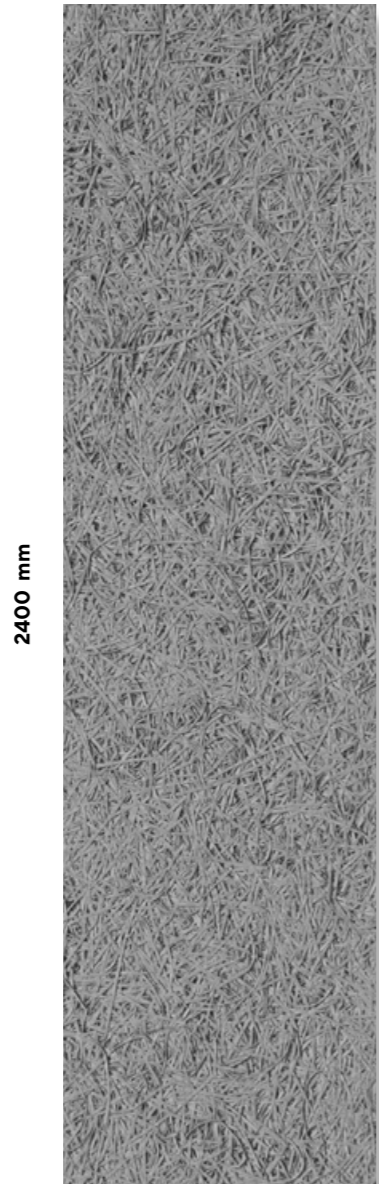
Träullit Compact Element is an exterior wall product of cement-bonded wood wool reinforced with round timber, uniquely developed for holiday homes, garages, guest houses, garden sheds, and other small-scale constructions. A swift and uncomplicated installing, high resistance to fire, mold, and rot, excellent thermal insulation, heat accumulation, and low U-values make Träullit Compact Element an excellent choice for any smaller construction.





Träullit Compact Element

150 mm thickness



2400 mm

600 mm



Träullit Compact Element is an exterior wall product and construction system of cement-bonded wood wool that is reinforced with round timber. The system offers a very swift construction period – approximately 3 m² is installed per hour and per, meaning the walls of an average garage of 50 m² is installed by two people in only one day.

Träullit Compact Element

Träullit Compact Element is a cement-bonded wood wool wall element that is reinforced with round timber for greater solidity and carrying capacity. The product offers the same acknowledged functional characteristics as all of Träullits products – thermal insulation, heat accumulation, resistance to fire, moisture, mold, and rot. Combined with a swift and uncomplicated installing, Träullit Compact Element is an excellent choice for smaller constructions like holiday homes, garages, and guest houses.

Functional characteristics

Like all of Träullits products, Träullit Compact Element offers a multitude of functional characteristics. It provides a thermally insulating framework with exceptional thermal energy storage that is completely free from plastics and other synthetic materials. When comparing the thermal transmittance with other homogenous materials, like lightweight concrete or Leca, Träullit Compact Element is the least thick option for an equal U-value.

U-value	Träullit, mm	Lightweight concrete, mm	Leca, mm
0,48	150	200	360
0,36	200 (150 + 50*)	285	480
0,33	220 (150 + 70*)	320	520
0,29	250 (150 + 100*)	370	600
0,24	300 (150 + 150*)	450	750

* Additional insulation with Träullit Standard

Comparisons of U-values of different exterior wall products by different wall thicknesses (mm).

Due to its open surface structure, without closed cells, it offers effective moisture diffusivity and air permeability. Träullit Compact Element can be saturated with rainwater and dried without affecting its characteristics. In combination with a high pH, this results in a high resistant to both moisture, frost, mold, and rot. The bonding agent, cement, provides solid mechanic strength and an impact-resistant surface that withstands external influences.

Träullit Compact Element is a more firm and robust foundation for plaster than other insulating materials. Its coarse surface structure is perfect for applying plaster, but can also hold any other desired exterior wall cladding.

Swift and uncomplicated installation

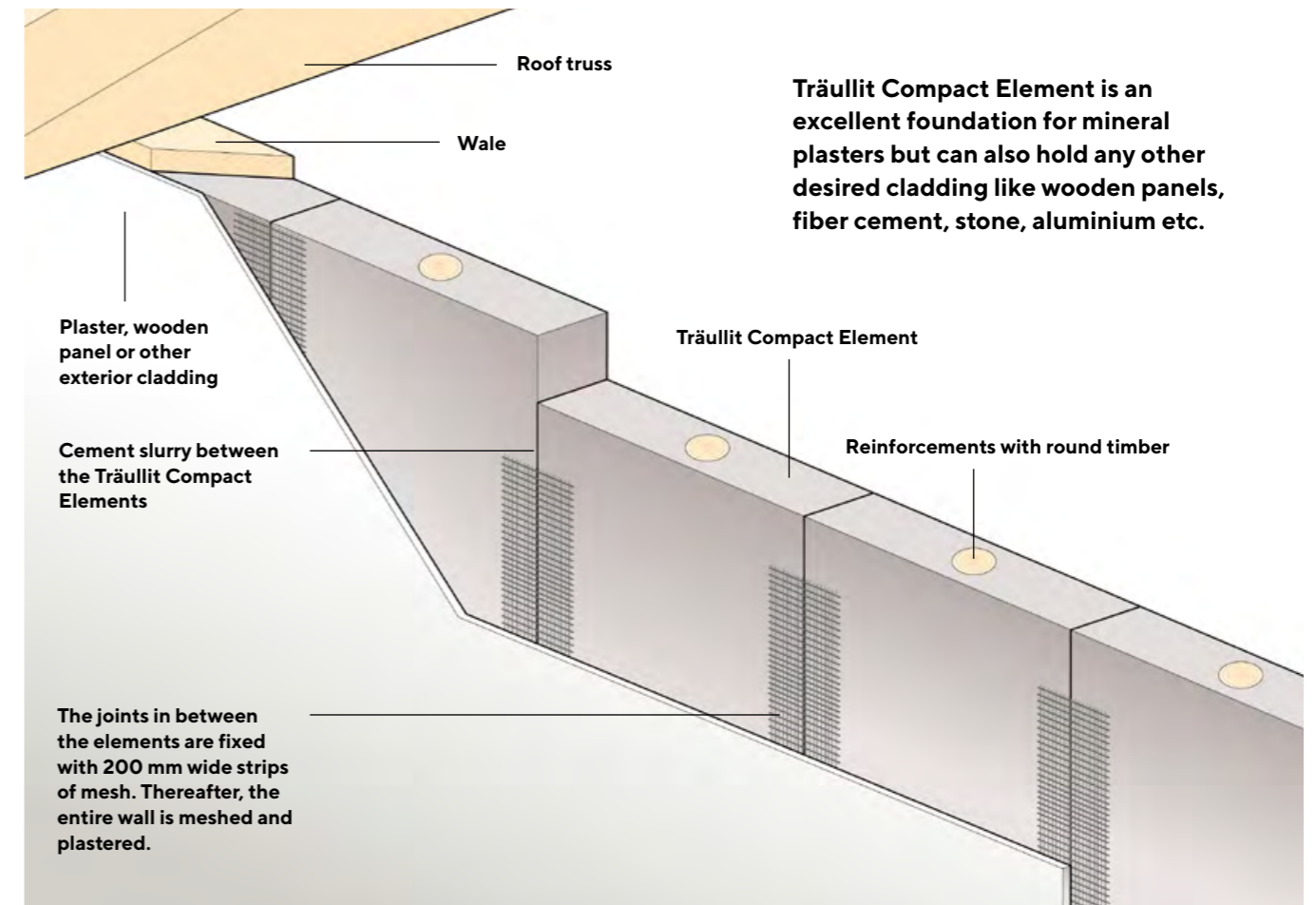
Thanks to the product's construction, where joints and trusses are facilitated by fusing the story-high wall elements together, only a very short construction period is required. One person can approximately install 3 m² of Träullit Compact Element per hour, meaning the exterior walls of an average private garage of 50 m² are installed in only one day by two workmen.

Organic and eco-friendly

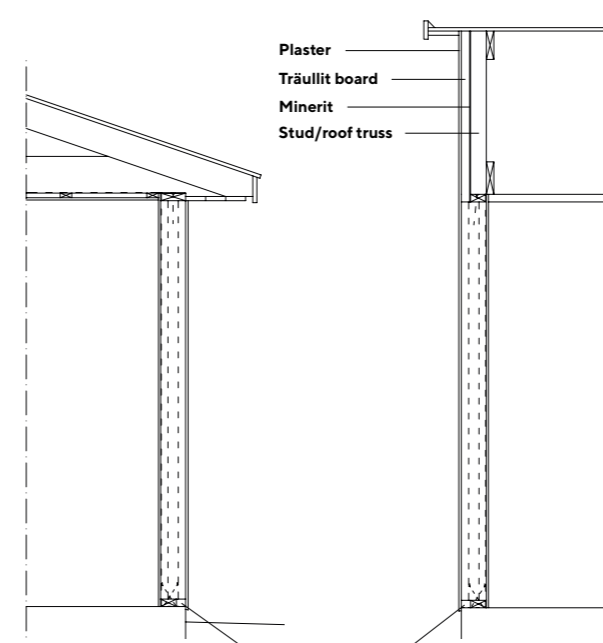
Träullit Compact Element is an organic and renewable product with very low emissions. It consists of locally grown Swedish spruce, water, and cement – nothing else. It allows for natural, long-lasting, and eco-friendly constructions, providing a healthy atmosphere both today and tomorrow. The product has undergone Environmental Product Declaration testing (EPD) and is evaluated with great results by SundaHus Miljödata and Byggvarubedömningen.

For complete declarations, environmental reports, certificates, quality policies, and overall information regarding Träullits products, please contact us directly or visit our website, www.traullit.se.

Construction

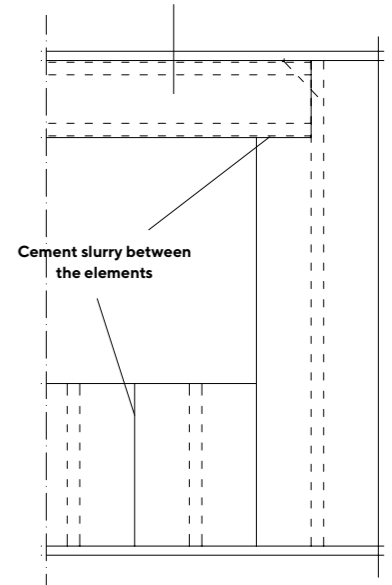


Träullit Compact Element is an excellent foundation for mineral plasters but can also hold any other desired cladding like wooden panels, fiber cement, stone, aluminium etc.



When the wall consists of only one Träullit Compact Element a fitting piece of wood wool is installed in the bottom to cover the sill plate.

Horizontally placed Träullit Compact Element, reinforced with one or two round timber posts depending on load case.



Installation of windows and doors.



Träullit Plaster Base



Thermally insulating plaster base that combines swift installation periods with functional characteristics

Träullit Plaster Base is a cement-bonded wood wool panel with molded ducting channels. The product allows for a short installation time since battening of the walls is not required. The parts of the wood wool panel installed in direct contact with the base are fitted with vapor barriers.

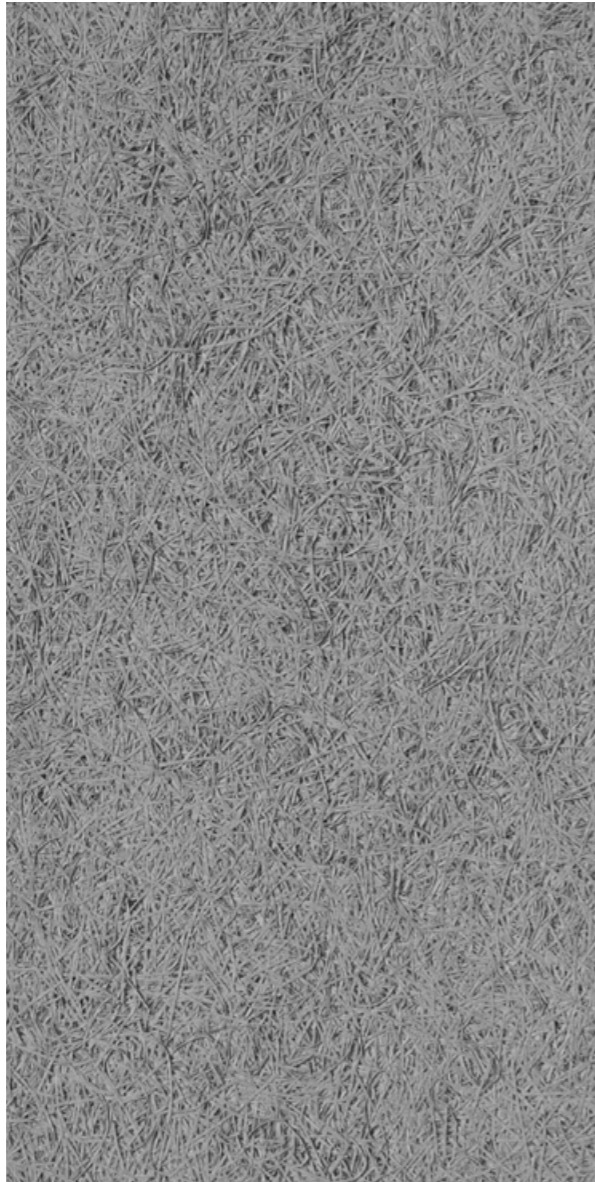
Träullit Plaster Bases are homogenous, with a firm surface structure, comprising an excellent foundation for mineral-based plasters. It is an organic and natural product that combines versatile characteristics with function. For this purpose, Träullit has been used as thermally insulating plaster bases for more than 70 years.



Träullit Plaster Base

50 mm thickness

1200 mm



600 mm



The unique material composition of wood wool, cement, and water, provides several functional characteristics and a coarse and open surface structure that is an excellent foundation for mineral plasters.



Träullit Plaster Base

The unique material composition of wood wool, cement, and water, provides several functional characteristics and a coarse and open surface structure that is an excellent foundation for mineral plasters.

Characteristics

- **Thermally insulating.** Thanks to its exceptional heat capacity, Träullit Plaster Bases contribute to a comfortable indoor climate with balanced air temperatures year-round.
- **Fire protection.** Träullit is type-approved as protective cladding with class 1 coating.
- **Moisture resistant.** Träullit is a moisture resistant material that can be saturated and dried without compromising its attributes. It has a high pH that counteracts mold and rot.
- **Mechanical strength.** Thanks to its mechanical strength, Träullit is a more firm and solid base for mineral plasters when compared to other insulating materials.
- **Good grip for plaster.** With a coarse and robust surface-structure, Träullit offers great grip for plasters.

Durable, time- and cost-efficient constructions

Träullit Plaster Bases have molded ducting channels that make for a swift and cost-efficient installation period as battening of the walls is no longer required. The product can also be clad in any desired exterior wall cladding.



The parts of the wood wool board that are installed in direct contact with the base are fitted with vapor barriers.

Träullit Plaster Base combines mechanical strength with a coarse surface structure that provides a more solid and durable foundation for plastering than other insulating materials. It is fire resistant and is type-approved as protective cladding with a class 1 coating.

Thermal insulation and heat accumulation

Träullit Plaster Base is thermally insulating with a type-approved lambda value of $\lambda = 0,070 \text{ W/m } ^\circ\text{C}$ (no. 0407/89). The material combines low thermal conductivity with relatively high density, resulting in excellent thermal energy storage and a comfortable indoor climate with few fluctuations in room temperature. Subsequently, this leads to reduced energy consumption and lower heating costs.

Dimensions

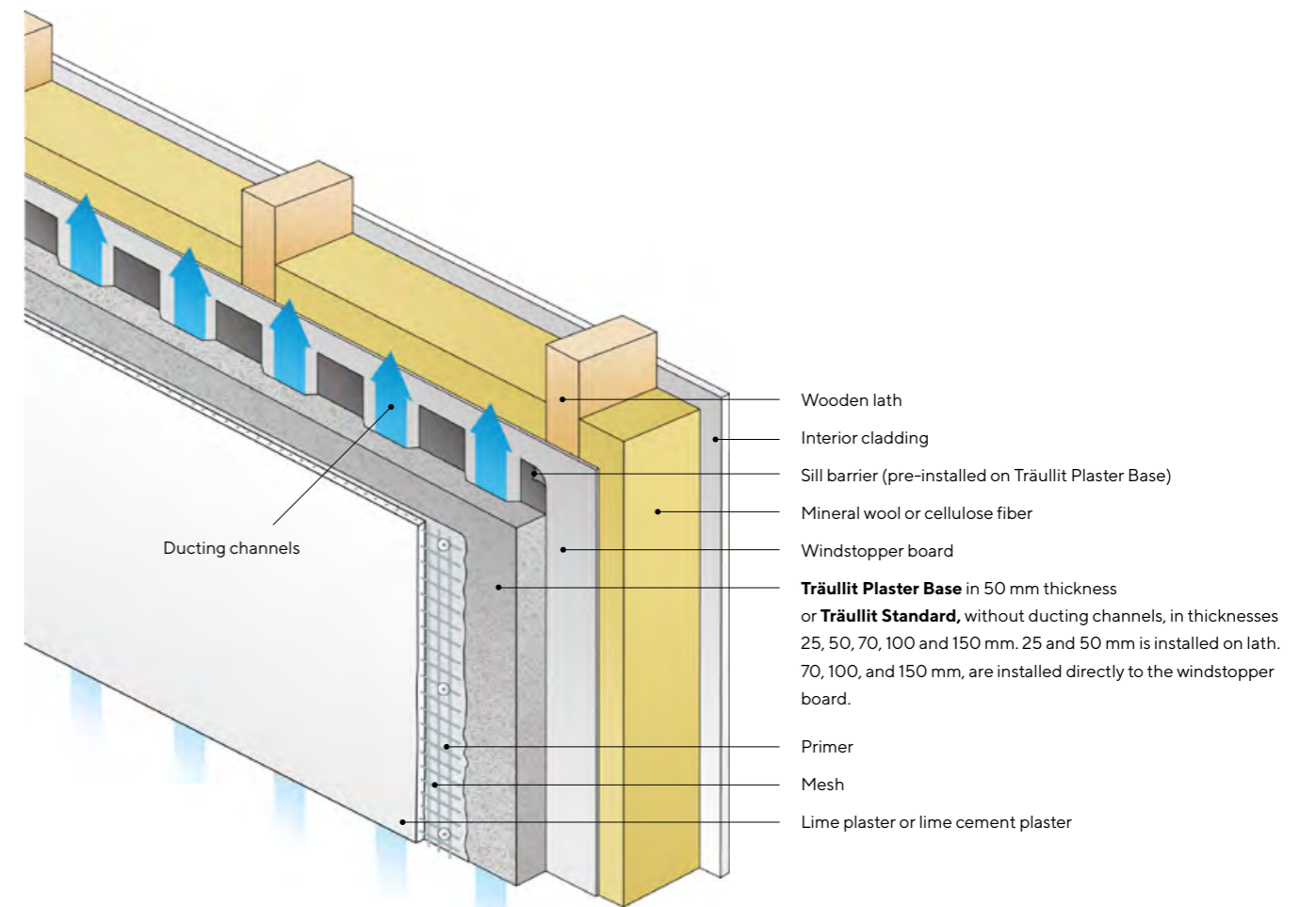
Träullit Plaster Base, with molded ducting channels, are fabricated with 50 mm thickness, in the dimensions 50 x 60 x 1200 mm. For other thicknesses and formats, we refer to Träullit Standard, our high-performing cement-bonded wood wool board without ducting channels. In thicknesses 25 and 50 mm, Träullit Standard is installed on lath. Thicknesses 70, 100, and 150 mm, are instead installed directly to the windstopper board.

An eco-friendly and sustainable option

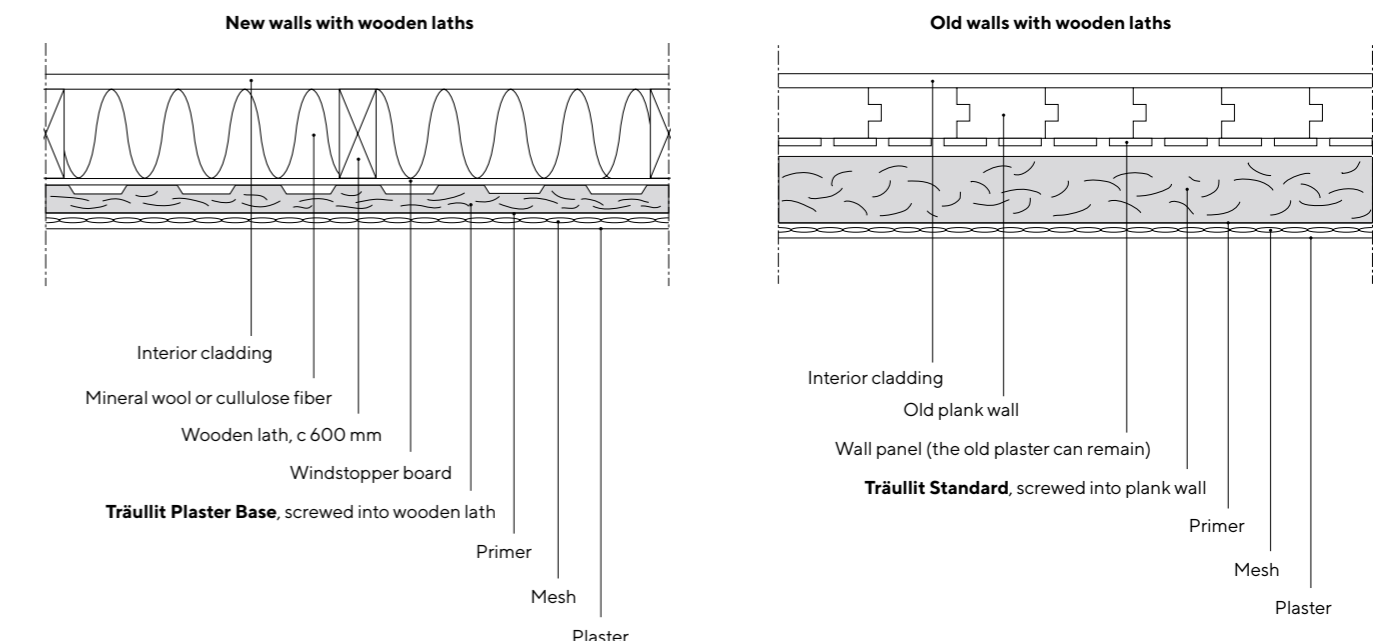
As all of Träullits products, our Plaster Base is sustainable and organic, consisting of wood wool from Swedish spruce, water, and cement – nothing else. It enables eco-friendly constructions that are long-lasting and will provide a healthy atmosphere – both today and tomorrow.

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Construction



Used on both old and new exterior walls





Assortment and specifications



Träullit Wall Element

Träullit Wall Element	Dimensions, mm (H x T x W)	Type	Linear meters (approx.) per truck and trailer upon delivery
Prefabricated Träullit elements for exterior wall constructions	2600 x 400 x 2400	Normal	108
Normal (wool width 2,5 mm)	2600 x 400 x 6000		
Grey Cement	Available in customized dimensions		

Träullit Compact Element

Träullit Compact Element	Dimensions, mm	Type	Delivery weight, approx. kg/m ²	Pcs/pallet pcs/m ²
Round timber reinforced Träullit element for smaller constructions	150 x 600 x 2400	Normal	58	6 / 8,6
Normal wool width (2,5 mm)				
Grey				

Träullit Plaster Base

Träullit Plaster Base	Thickness, mm	Dimensions, mm (W x H)	Pcs/pallet pcs/m ²	Delivery weight, approx. kg/m ²
Insulating wood wool board with ducting channels	50	600 x 1200	20 / 14,4	20
Fitted with vapor barriers				



Do you want to know more?

We produce a versatile material for the industrial construction of houses, venues, schools, libraries, industrial properties, and warehouses. Träullit is a sustainable, functional, and organic building material with functional characteristics that help create a balanced and healthy atmosphere.

Do you want to know more about our products, their heat accumulation, sound absorption, moisture regulation, fire protection, solidity, or renewability?

Call us, send us an email, or come by for a visit.
Thank you!

Contact us:

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