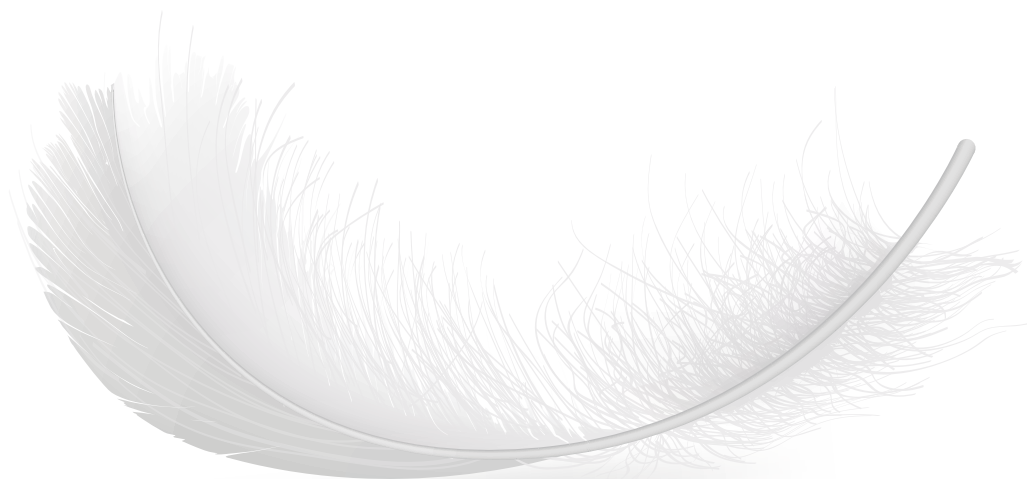


ULTIMATE™

Light stone wool. Experience the difference!

WHAT IS ULTIMATE™?



Whether you are looking for fire protection, optimal thermal performance or advanced acoustic insulation, you will also benefit from maximum installation comfort and the the lightest range of stone wool solutions available on the market.

Thanks to intense and continuous R&D efforts, involving a composition of raw material equivalent to that of stone wool and a patented fiberising process allowing us to transform 100% of the material into insulation performance, we are pleased to offer our customers this revolutionary stone wool product. Every gram of ULTIMATE™ benefits the customer.

BENEFITS FOR THE ENTIRE VALUE CHAIN



**Benefits for owners & specifiers
Benefits for installers
Benefits for distributors**

BENEFITS FOR OWNERS & SPECIFIERS

Reduce TCO (total cost of ownership)

ULTIMATE™ helps reduce operating costs throughout the life of the project.

➤ **Energy savings:**

Thanks to the outstanding thermal performance of ULTIMATE™, the temperature inside the system is kept at the desired temperature and heat losses are reduced to the minimum. This means a significant reduction in energy bills.

➤ **Durability:**

ULTIMATE™ being flexible, it optimally resists system vibrations and therefore, it provides full performance throughout the life of the system.

Provide the most sustainable solution

ULTIMATE™ reduces the impact of the system on the environment.

➤ **Energy savings:**

Thanks to the outstanding thermal performance of ULTIMATE™, heat losses are reduced to the minimum, and the use of primary energy is reduced significantly. In addition to that, the resilient product characteristics allowing to compress the products and optimise space during transport reduce transport related energy consumption.

➤ **CO₂ emissions reductions:**

As less energy is consumed, CO₂ emissions are reduced to the minimum. And the resilient characteristics allowing to compress the products help optimise space during transport and reduce CO₂ emissions from transport.



Optimise the design

› **Space savings:**

Given the excellent thermal conductivity of ULTIMATE™, it is possible to achieve the required thermal performance with less insulation thickness; in some cases, where space is limited around the equipment or where usable space should be optimised, this criterion can make a significant difference.

› **Less supports needed:**

As the same thermal, acoustics and fire performances are achieved with a solution up to 70% lighter than standard stone wool solutions, the overall weight of the construction can be reduced and less supports are needed.



Provide acoustic comfort

› **Sound absorption:**

With ULTIMATE™, thanks to a finer fibre structure, sound absorption levels equivalent to or better than traditional stone wool solutions can be achieved with less density and less weight.

› **Insertion loss:**

Thanks to the elastic product characteristics of ULTIMATE™, sound transmission through the fibre structure is reduced to a minimum and the sound insulation properties of the systems are optimised.

BENEFITS FOR INSTALLERS

Reduce TCI (total cost of installation)

ULTIMATE™ helps reduce installation time.

➤ **Lightweight:**

Thanks to its weight up to 70% lighter than standard stone wool products, ULTIMATE™ is easy to handle and to carry around on site. Depending on country regulations, some ULTIMATE™ products may even be handled by only one person.

➤ **Easy cut system:**

Available for wired net mats, this pre-cut solution allows for significant time savings.

➤ **Flexibility:**

Its flexible characteristics facilitate bending and handling and make it easier to cut.

➤ **Cleaner jobsite:**

ULTIMATE™ allows a cleaner jobsite, as it generates less particles.

Install comfortably

ULTIMATE™ improves installation comfort.

➤ **Lightweight:**

Being up to 70% lighter than standard stone wool solutions, ULTIMATE™ is more convenient to handle, generating better ergonomics and less fatigue for the workers.

➤ Its **flexibility** and **easy cut system** contribute to making ULTIMATE™ more pleasant to work with.



Optimise logistics

› Resilience:

ULTIMATE™ is highly resilient, meaning that it can be compressed significantly without creating a permanent distortion. As a consequence - in the case of wired net mats and rolls - more material can be packed into the same packing unit and less space is needed for storage or during transport.

Improve health & safety at work

› Lightweight:

ULTIMATE™'s light weight provides more ergonomic use and reduces the risk of back pain.

Enable the installers to propose added value solutions to their customers

› Excellent thermal performances:

The outstanding thermal conductivity of ULTIMATE™ - throughout the whole temperature range - can make the difference; the installer can differentiate himself by proposing optimised configurations with ULTIMATE™, as less material is necessary to achieve the same thermal performance.



BENEFITS FOR DISTRIBUTORS

Simplify logistics

ULTIMATE™ being very resilient, rolls and wired net mats can be compressed easily without creating permanent deformation. This makes it an extremely attractive solution from a logistical point of view.

➤ **Less storage space:**

The optimised packaging of ULTIMATE™ rolls and wired net mats requires less space for storage in warehouses, which is not only convenient, but also cost effective.

➤ **Reduce transport cost:**

With the smaller packing units, more material can be shipped on the same truck, reducing the number of truck trips required.

➤ **Reduce transport emissions:**

A direct consequence of reducing truck trips is a reduction in CO₂ emissions.

Stand out with a best-in-class versatile solution

➤ The various advantages combined in ULTIMATE™, whether in terms of thermal, acoustic, fire performance or light weight, allow the distributor to offer its customers a first-class stone wool solution.

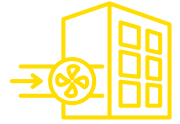


BENEFITS FOR ALL TECHNICAL MARKETS



HVAC
Industry
Marine

HVAC



In HVAC, glass wool is most often used for thermal and acoustic purposes, while stone wool is THE standard solution for fire protection. In certain situations, when fire protection is required, ULTIMATE™ can add significant value: basically as an all-in-one solution, providing the fire protection offered by stone wool, combined with better thermal and acoustic performances and a lower weight.

DID YOU KNOW ?

By insulating ducts with U PROTECT™ Wired Mat 4.0, noise can be **reduced up to 32 dB(a).**

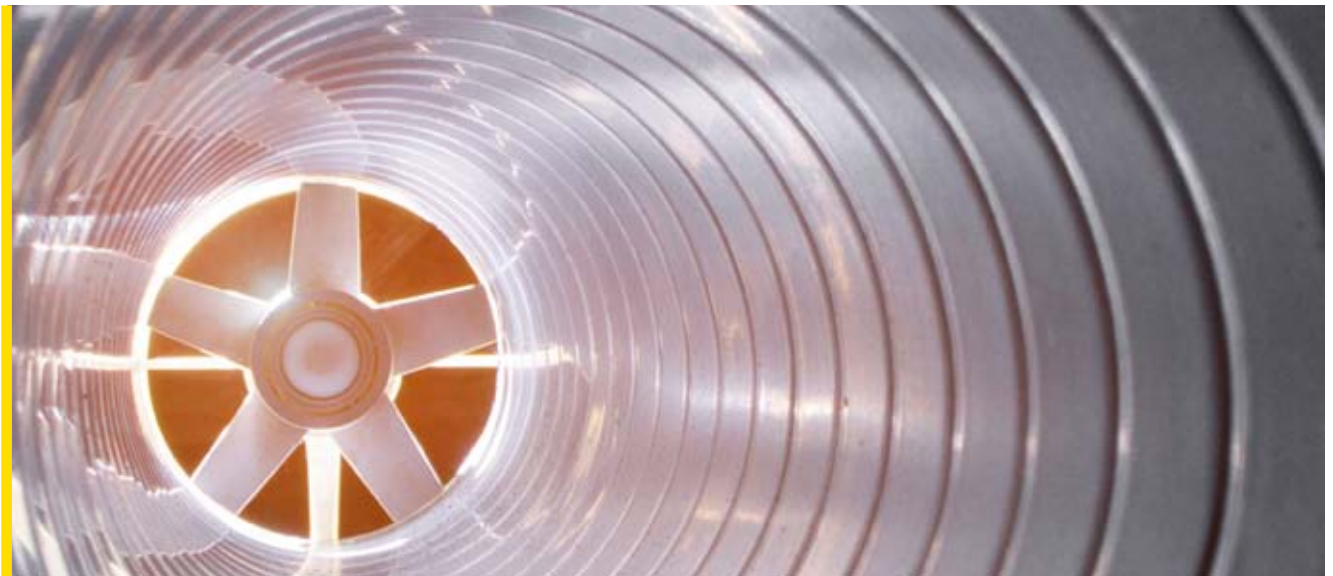
Beyond the arguments listed in the previous chapter, ULTIMATE™ has some additional advantages in HVAC applications:

An all-in-one solution for fire rated pipe insulation

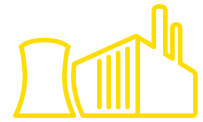
➤ With U PROTECT® PIPE SECTIONS, one can insulate both pipes and pipe penetrations with the same product.

Quality assurance

➤ ULTIMATE™ has a CE mark for fire resistant and smoke extraction ducts.



INDUSTRY



In industry, stone wool is THE standard mineral wool, most often specified and used for heat applications. It is explicitly specified in most prescription texts. In some situations, ULTIMATE™ can add significant value both during installation and during operation.

Beyond the previous arguments, ULTIMATE™ has some additional advantages over other stone wool in industry applications:

DID YOU KNOW ?

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Where space is limited, U TECH 6.0 allows - thanks to its excellent thermal characteristics - to save up to 40% of the thickness of the insulation.

Reduce downtime and maintenance costs

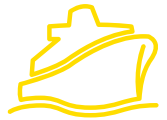
➤ Several features of ULTIMATE™ make it easy to handle and fast to install (lightweight, flexibility); this has a direct impact on reducing downtime and cost in maintenance projects.

Reduce penalties for CO₂ emissions

➤ As industrial operators may be subject to penalties for the quantities of CO₂ they emit, the reduction in CO₂ emissions obtained thanks to ULTIMATE™ has a direct positive financial impact for them.



MARINE



In marine, ULTIMATE™ has forged a strong position over the years to the point of becoming a new standard in light mineral wool. ULTIMATE™ is primarily used for fire rated divisions as a lightweight alternative to other stone wool solutions. It is explicitly present in many specifications.

Beyond the general arguments, ULTIMATE™ has many more advantages over other stone wool solutions in marine applications:

DID YOU KNOW ?

While high-end vessels favour high-end constructions such as aluminium or FRP, they also require the choice of lightweight fire protection materials. U SEAPROTECT™ solutions for aluminium constructions save up to 35% weight.

Comfort on board

With the U SeaProtect™ «Full Comfort» range, ULTIMATE™ offers the best level of thermo-acoustic comfort possible with mineral wool.

➤ **Excellent thermal performance:**

The exceptional thermal conductivity of ULTIMATE™ makes the difference compared to standard stone wool solutions, because equivalent performance can be achieved with thinner and lighter solutions.

➤ **Best-in-class sound insulation:**

ULTIMATE™ offers excellent acoustic performance with less weight.





Reduce TCO (total cost of ownership)

ULTIMATE™ helps reduce operating costs throughout the life of a vessel.

› **Lower fuel consumption:**

Less weight means lower operating costs. The increase in operating costs encourages ship owners to look for more innovative and efficient vessels or offshore constructions. ULTIMATE™ offers an ideal opportunity to massively reduce energy consumption. Since each additional kilogram means higher costs, the weight savings achieved with ULTIMATE™ significantly reduce fuel consumption, while ensuring at least the same levels of safety and comfort.

› **Save energy on HVAC systems:**

Thanks to its excellent thermal performance, ULTIMATE™ also considerably reduces the energy consumption of HVAC systems on board.

› **Turn deadweight into payload:**

Less weight for insulation means more payload. Reducing the weight of the insulation using ULTIMATE™ solutions makes it possible to reduce the dead weight and opens the door to proportionally increase the payload, i.e. the number of passenger cabins, trailers or other equipment, on a scale that cannot be reached with other stone wool insulation.

Sustainable shipbuilding

ULTIMATE™ helps reduce the impact of the ship on the environment.

➤ **Lower energy consumption:**

Less weight means less fuel consumption and less energy required for HVAC systems. This translates directly into primary energy savings, while ensuring at least the same levels of safety and comfort.

➤ **CO₂ emissions reductions:**

At the same time as energy savings, CO₂ emissions are considerably reduced.

Benefit from a maximum design freedom

➤ **Space savings:**

As mentioned earlier, thanks to the excellent thermal conductivity of ULTIMATE™, it is possible to achieve the required performance level with less insulation thickness; in some cases, there is no need to insulate the stiffeners; where space is limited around the stiffeners, this criterion can make a significant difference.

➤ **Better stability:**

Being lightweight, ULTIMATE™ helps designers improve the stability of a ship construction, ensuring at least the same insulation performance. That provides more freedom in the planning phase. ULTIMATE™ solutions help a construction make the difference right from the design phase by reducing the weight in critical areas generally located above the waterline or in accommodation areas.

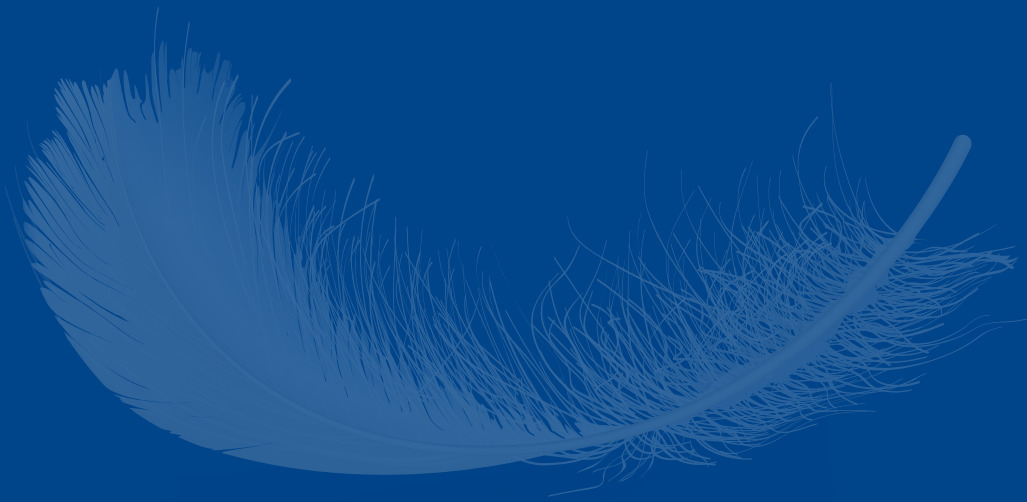
Install easily with the Quick-Cover mounting system

➤ This smart and unique feature contributes to significantly reducing installation time and improving installation comfort.



Saint-Gobain Technical Insulation

PUSHING THE LIMITS OF SUSTAINABILITY TOGETHER.



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