

LIGHTWEIGHT

To sum up all the arguments, what are the advantages of being lightweight for ONDULINE® roofing sheets?

- Materials can be lightweight yet robust! ONDULINE® sheets only weight 3,16 kg/m² (EPD Bitumen sheets 2016). Lightweight materials used in the production process: cellulose fibres.
- More comfort for installers = installer wellness.
- Possibility to reduce structural load: lighter supports and thinner material possible because the weight to be supported per m² is lower + safer in typhoon/hurricane-prone areas.
- Particularly suitable for renovation and retrofitting: no need for structural reinforcements and cost-savings solution of over roofing.
- Ease of installation = reducing labour costs.
- Quicker construction = reducing labour costs.
- More versatile design for the architects and homeowners.
- Transport and logistics: cost savings + reducing environmental footprint.

In summary, lightweight roofing offers a multitude of benefits. Using ONDULINE® sheets can lead to safer, more cost-effective, eco-responsible, and versatile buildings. It aligns with modern construction practices that prioritise sustainability, safety, and efficiency.

Lightweight yet robust.

When it comes to roofing solutions, the term "lightweight" might raise concerns for some people. The common misconception is that lightweight materials are synonymous with fragility and a compromise in durability. However, this couldn't be further from the truth. In fact, they often bring several advantages to the table.

Thanks to cellulose fibres, ONDULINE® sheets are lightweight and flexible. Advancements in materials science and engineering have led to the development of **lightweight materials that are lightweight yet robust**. Think of wood, the source of cellulose itself! Trees or plants can bend wind without failing, resisting and flourishing for decades. Boat hull, ski & surf, tennis rackets, bike frames, wind turbines, plywood... **Many light materials require strong mechanical resistance** combined with the lowest possible weight (EDS N°3, 2021).

ONDULINE® sheets are engineered to have a **good strength-to-weight ratio**. They distribute the weight effectively and reduce the strain on the underlying structure. **They only weight 3,16 kg/m²** (EPD Bitumen sheets 2016).*

*Weight of bitumen sheets vary depending on the products from the lowest, 2,7 kg/m² (ONDULINE EASYFIX® COMPACT,...) to the highest, 4,72 kg/m² (ONDULINE® MAIS).

Worker/homeowner wellness.

Lightweight means more comfort for the installer and saying goodbye to back pain. A clear correlation between heavy load and pain was established by the WHO. By saving energy, the worker/homeowner preserve its health.

Reduced structural load.

Lightweight roofing materials are inherently lighter compared to traditional roofing solutions like concrete, fiber cement or clay tiles.

Lightweight roofing like ONDULINE® sheets allow for reduced structural load which benefits construction projects in various ways:

1- Cost savings: The weight to be supported by the structure per m² is lower with ONDULINE® sheets. This allows for lighter supports and thinner material used for the structure, reducing eventually material costs.

2- Safety: One of the reasons for reducing roof weight is safety. **A lighter roofing places less stress on the building's foundations** and structural elements, which can reduce the risk of structural failure or collapse. This is particularly important in typhoon/hurricane-prone areas or regions with poor soil conditions.



Ease of installation.



Additionally, due to their light weight, ONDULINE® sheets are easy to transport and install, **their ease of installation can**

further save on labour expenses. Heavy roofing solutions may entail higher upfront costs for both materials and installation.



Watertight



Wind Resistant



Sound absorbing



Lightweight



Fast to install



Easy to install



Aesthetic



Eco-responsible



MORE FAQ ABOUT LIGHTWEIGHT

Quicker construction.

Lighter roofing are often **quicker to construct because they require less labour and machinery** for handling heavy materials (no need for a crane or lifting machine). This can result in shorter construction timelines, potentially saving money on labour costs and accelerating the project's completion. This can be particularly advantageous for projects with tight timelines.

Versatile design.

Lighter roofing solutions often allow for more architectural design flexibility. Architects can incorporate larger open spaces, unique shapes, and innovative features without being limited by the weight-bearing capacity of the building. Homeowners can achieve the desired aesthetic.



Architect



Home Owner

Renovation and retrofitting.

Because ONDULINE® sheets are light, they can be **used in renovation for over roofing**. They can be **adapted for different uses without major structural modifications**, which can be cost-effective for building owners. In cases where older buildings need renovations or retrofits, replacing heavy roofing materials with lightweight options can extend the building's lifespan without requiring extensive structural modifications or reinforcements. This can be **a cost-effective solution for revitalising older structures**.



Environmental efficiency: transportation and logistics.

Using ONDULINE® sheets in a construction project may contribute to **reduce the carbon footprint** as **the transportation of lightweight roofing materials** to the construction site is often more straightforward and cost-effective compared to heavy roofing materials.

Lower freight cost

Our lightweight solutions permit to put **around 420 units on a pallet**. This represents 798 m². Freight costs are reduced because we load more m² per truck and so, environmental footprint is lower.

In comparison, you can put only 80 units around of fiber cement on a pallet (ref. TDS fiber cement manufacturers).

If we take the exemple of **a full truck (14 tons)**, our lightweight solutions definitely allow us to put more m² in a truck **reducing carbon footprint**:

ONDULINE CLASSIC®	3.800 m²
Shingle*	3.000 m ²
Fibercement*	1.072 m ²
Clay tile*	340 m ²
Concrete tile*	295 m ²

* Approximative measures based on other solutions TDS





MORE FAQ ABOUT LIGHTWEIGHT

Our lightweight solution VS other solutions.

If we consider a big house with 4 rooms of about 150 m², how heavy is the roofing solution for a clay tile house? Around 6700 kilos which equals to 1 big elephant and 1 hippotamus.



Now, imagine the same house with ONDULINE® roofing sheets. It weights as little as 750 kilos which equals to only 1 medium adult horse.



Now, you can see the difference it makes on a structure! Especially an old one.

With ONDULINE® sheets you can load enough units in a 14 tons truck to realise the roofing of 18 houses of 150 m²!

Weight of our bitumen sheets:

ONDULINE EASYFIX® ONDULINE EASYFIX® COMPACT ONDULINE EASYSTYLE®	2,7 kg/m ²
ONDULINE® ONDALUX ONDULINE® EASYLINE (8) ONDULINE TAPUME®	2,8 kg/m ²
ONDULINE® BASE ONDURA EDGE	3 kg/m ²

ONDUCASA®	3,1 kg/m ²
ONDULINE® STILO + STILO 3D ONDULINE® TILE	3,2 kg/m ²
ONDULINE® DURO 235	3,3 kg/m ²
ONDULINE® EASYLINE (10) ONDURA PREMIUM (9 and 10) ONDURA PREMIUM HALF SHEET ONDULINE® CLASSIC ONDULINE® SMART ONDULINE® ZIGANA + ZIGANA TILE	3,4 kg/m ²
ONDULINE® DURO SX 35	3,62 kg/m ²
ONDULINE® ZIGANA X-TREME	3,7 kg/m ²
ONDULINE® MAIS	4,72 kg/m ²

To use on your SoMe to highlight the advantages of lightweight sheets.

Discover the benefits of ONDULINE® Lightweight Roofing Sheets! ✨

1- Lightweight yet Robust: ONDULINE® sheets use cellulose fibres for a perfect blend of lightweight and strength. Just like flexible trees 🌳 they're resilient and weigh only 3,16 kg/m², proving that lightweight can indeed be robust.

2- Reduced Structural Load: Save costs and enhance safety, especially in typhoon/hurricane-prone areas. Thanks to their light weight, ONDULINE® sheets require less structural support saving on material costs and labour.

3- Ease of Installation: Lower labour costs with easy transport and installation due to their light weight.

4- Quicker Construction: Accelerate project timelines with quicker installation, a real plus for projects with tight schedules 😊

5- Versatile Design: Architectural flexibility for unique designs and aesthetic freedom 🎨 ✨

6- Renovation & Retrofitting: Cost-effective solutions for reviving older structures without major modifications.

7- Environmental Efficiency: Reduce the carbon footprint with efficient transportation due to lightweight materials. Load more m² in a truck and make a positive environmental impact 🌍

8- Worker & Homeowner Wellness: Lightweight means more comfortable for installers and reduced back pain, aligning with WHO guidelines 🧑‍🔧 🧑‍🏠

Make the smart choice for your roof - ONDULINE® for lightweight, safer, cost-effective, eco-responsible, and versatile roofing solutions!