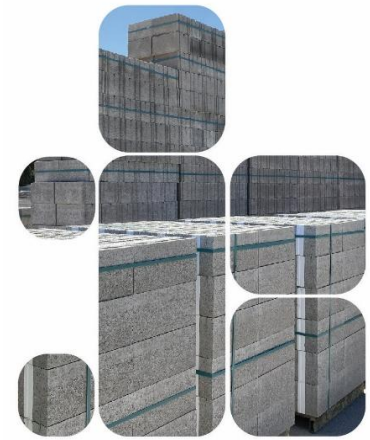




Technical Data Sheet

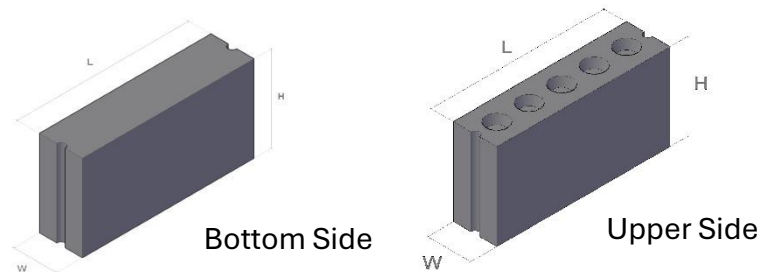
REGULAR & LIGHTWEIGHT SOLID BLOCKS

10x20x40 – 12x20x40 – 15x20x40 – 20x20x40 cm

Sibline **Solid Block** is a non-load-bearing concrete masonry unit available in both lightweight and normal densities, designed for internal partitioning and external walls. It is produced with an automatic press in accordance with EN 771-3, Category D1. The block strength can be adjusted according to the Engineer's requirements. Several compressive strengths can be achieved for a given density.

It is manufactured using a proprietary mix design containing Portland cement, silica sand, limestone aggregates and lightweight materials, including pumice (natural lightweight aggregate) and non-toxic flame-retardant expanded polystyrene (EPS).

Sibline Lightweight Solid Blocks are available in densities of **1200 and 1400 kg/m³**, while Sibline Regular Solid Blocks are available in a density of **2200 kg/m³**

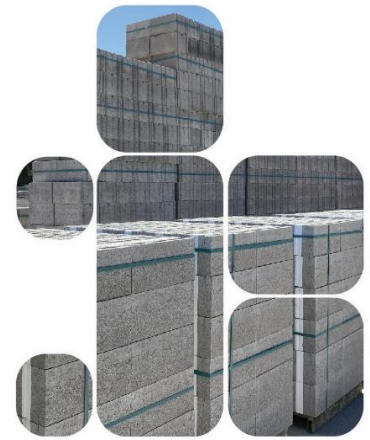


Dimensions in cm		
Width (W)	Height (H)	Length (L)
10	20	40
12	20	40
15	20	40
20	20	40

Technical Data Sheet

REGULAR & LIGHTWEIGHT SOLID BLOCKS

10x20x40 – 12x20x40 – 15x20x40 – 20x20x40 cm



Sibline **Solid Blocks** have successfully passed the two-hour fire resistance test in accordance with EN 1364 standards¹. The EPS used is a non-toxic, flame-retardant (FR-grade) expandable polystyrene produced using a reactive flame-retardant agent, with no additive agent used.

Sibline works exclusively with EPS producers that comply with EN RAR 2006 standards, particularly regarding the HBCDD concentration, which remains below 0.7%. The EPS used is free from HFCs, CFCs, and HCFCs, unlike extruded polystyrene (XPS), which is commonly used in Lebanon.

In addition, the global warming potential (GWP) of Sibline EPS is less than 5, as Pentane is used as the blowing agent. Pentane is not classified by the European Union as a substance hazardous to human health or the environment. By comparison, the typical GWP of XPS is around 1300 due to the use of HFCs as blowing agents.

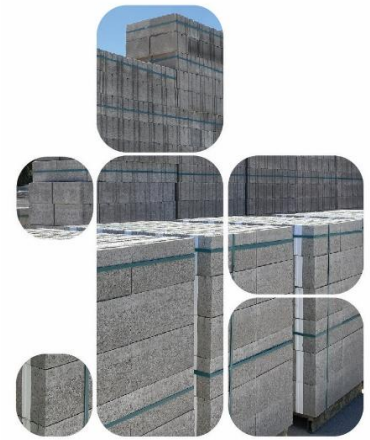
One of the key advantages of **Sibline Lightweight Solid Blocks** is their **low thermal transmittance (U-value)** compared to other construction materials. This helps reduce energy consumption throughout the building's lifetime by improving its thermal performance.

1. A two-hour fire EN 1364 Certificate is available for a 10 cm Lightweight Hollow block with density 1400 kg/m³. A copy of the certificate can be sent upon request. A two-hour fire ASTM E119 Certificate is available for a 10 cm normal weight hollow block

Technical Data Sheet

REGULAR & LIGHTWEIGHT SOLID BLOCKS

10x20x40 – 12x20x40 – 15x20x40 – 20x20x40 cm



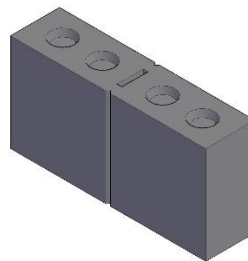
Due to the quality of the raw materials used, the high cement content, and the advanced manufacturing and pressing process, **Sibline Lightweight Solid Blocks** exhibit relatively low water absorption. This can be further reduced by incorporating waterproofing admixtures.

They are ideal for both internal and external walls, particularly in areas where there is a risk of condensation caused by significant temperature differences and/or high humidity levels.

The homogeneity and high compaction of the concrete help minimize the transmission of airborne sound through partition walls, providing sound insulation of up to **40 dB**, which can reach **52 dB** depending on the wall thickness and construction details.

Sibline Solid Blocks are also easier to cut and shape using a saw or hammer compared to conventional concrete blocks, facilitating installation and reducing construction time.

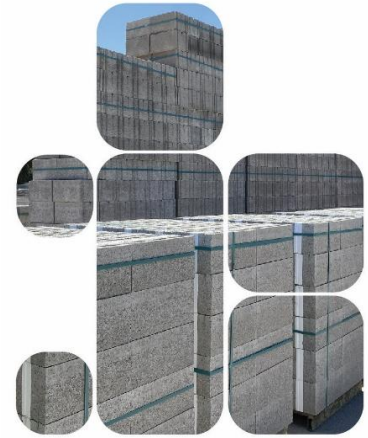
Solid blocks with widths of 10, 12, 15, and 20 cm are delivered with a certain percentage of “split” blocks, which can be easily separated into two pieces on-site without the need for a hammer or saw.



Technical Data Sheet

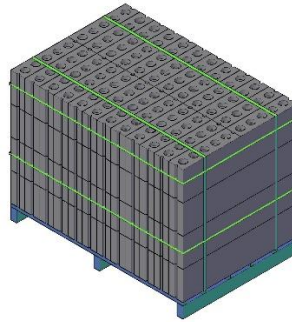
REGULAR & LIGHTWEIGHT SOLID BLOCKS

10x20x40 – 12x20x40 – 15x20x40 – 20x20x40 cm



Solid 10x20x40cm

Logistics



Pallet		EURO / 2-way entry / steel			
Pallet dimensions ($W_p \times L_p \times H_p$)	cm	80 x 120 x 8			
Pallet weight	kg	20			
Typical strapping	-	2 longitudinal / 2 transversal			
Net dry density (kg/m ³) ²		Unit	1200	1400	2200
Typical block weight ³		kg	9.5	11	17
gross dry density ⁴		kg/m ³	1,188	1,375	2,125
blocks per pallet		pieces	96	96	96
weight of one pallet loaded (incl. pallet) ⁵		kg	932	1,076	1,652
height of one pallet loaded (incl. pallet)		cm	90	90	90
pallets per 12 m length trailer ⁶		pallets	27	27	27
pallets per 4.12 m length truck (Hino type) ⁶		pallets	6	6	6
blocks per 12 m length trailer		pieces	2,592	2,592	2,592
blocks per 4.12 m length truck (Hino type)		pieces	576	576	576

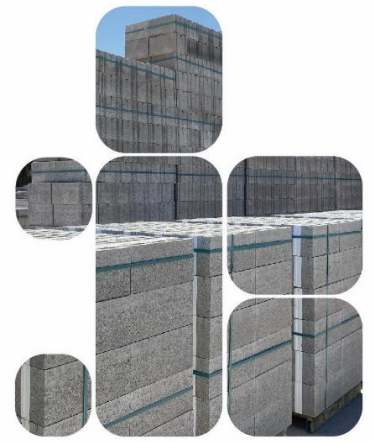
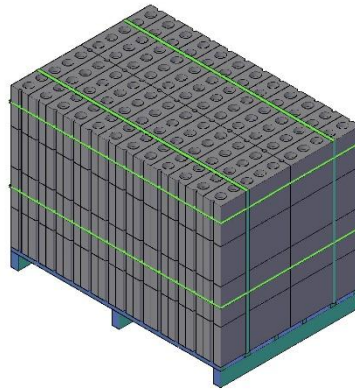
Technical Data Sheet

REGULAR & LIGHTWEIGHT SOLID BLOCKS

10x20x40 – 12x20x40 – 15x20x40 – 20x20x40 cm

Solid 12x20x40cm

Logistics



Pallet		EURO / 2-way entry / steel			
Pallet dimensions ($W_p \times L_p \times H_p$)	cm	80 x 120 x 8			
Pallet weight	kg	20			
Typical strapping	-	2 longitudinal / 2 transversal			
Net dry density (kg/m ³) ²		Unit	1200	1400	2200
Typical block weight ³		kg	11.3	13.2	20.8
gross dry density ⁴		kg/m ³	1,177	1,375	2,167
blocks per pallet		pieces	80	80	80
weight of one pallet loaded (incl. pallet) ⁵		kg	924	1,076	1,684
height of one pallet loaded (incl. pallet)		cm	90	90	90
pallets per 12 m length trailer ⁶		pallets	27	27	27
pallets per 4.12 m length truck (Hino type) ⁶		pallets	6	6	6
blocks per 12 m length trailer		pieces	2,160	2,160	2,160
blocks per 4.12 m length truck (Hino type)		pieces	480	480	480

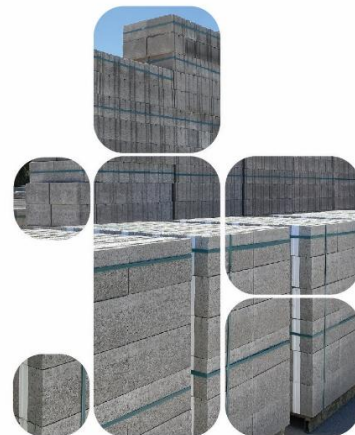
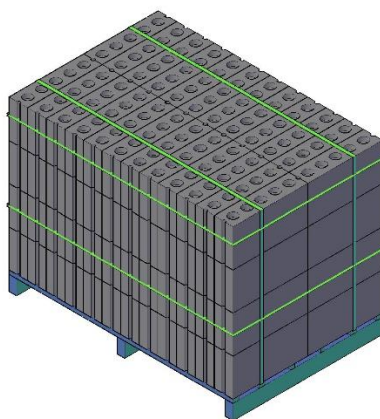
Technical Data Sheet

REGULAR & LIGHTWEIGHT SOLID BLOCKS

10x20x40 – 12x20x40 – 15x20x40 – 20x20x40 cm

Solid 15x20x40cm

Logistics



Pallet		EURO / 2-way entry / steel		
Pallet dimensions ($W_p \times L_p \times H_p$)	cm	80 x 120 x 8		
Pallet weight	kg	20		
Typical strapping	-	2 longitudinal / 2 transversal		
Net dry density (kg/m ³) ²		1200	1400	2200
Typical block weight ³	kg	14	16.5	26
gross dry density ⁴	kg/m ³	1,167	1,375	2,167
blocks per pallet	pieces	64	64	64
weight of one pallet loaded (incl. pallet) ⁵	kg	916	1,076	1,684
height of one pallet loaded (incl. pallet)	cm	90	90	90
pallets per 12 m length trailer ⁶	pallets	27	27	27
pallets per 4.12 m length truck (Hino type) ⁶	pallets	6	6	6
blocks per 12 m length trailer	pieces	1,728	1,728	1,728
blocks per 4.12 m length truck (Hino type)	pieces	384	384	384



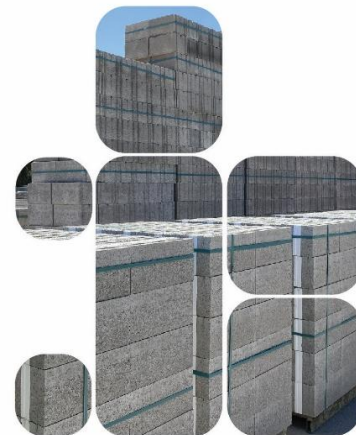
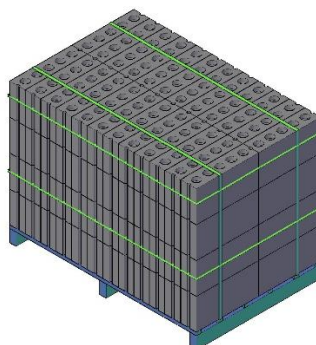
Technical Data Sheet

REGULAR & LIGHTWEIGHT SOLID BLOCKS

10x20x40 – 12x20x40 – 15x20x40 – 20x20x40 cm

Solid 20x20x40cm

Logistics



Pallet		EURO / 2-way entry / steel		
Pallet dimensions (W _p x L _p x H _p)	cm	80 x 120 x 8		
Pallet weight	kg	20		
Typical strapping	-	2 longitudinal / 2 transversal		
Net dry density (kg/m ³) ²		1200	1400	2200
Typical block weight ³	kg	19	22	34
gross dry density ⁴	kg/m ³	1,188	1,375	2,125
blocks per pallet	pieces	48	48	48
weight of one pallet loaded (incl. pallet) ⁵	kg	932	1,076	1,652
height of one pallet loaded (incl. pallet)	cm	90	90	90
pallets per 12 m length trailer ⁶	pallets	27	27	27
pallets per 4.12 m length truck (Hino type) ⁶	pallets	6	6	6
blocks per 12 m length trailer	pieces	1,296	1,296	1,296
blocks per 4.12 m length truck (Hino type)	pieces	288	288	288

2. Net dry density is the oven dry density of the lightweight/normal concrete used to fabricate the blocks.

3. Typical block weight is an average of several oven dry blocks weights measured as per 771-3.

4. Gross dry density is the oven dry block weight divided by its gross volume in m³.

5. Bases on oven dry weights.

6. Indicative maximum number of pallets based on full flat-bed trailers of 12m or for flat-bed Hino of 4.12 m in length.

General comment: As part of Sibline continuous improvement process, Sibline keeps the right to change the dimensions and weights without prior notice. For more details, please contact us.