

VODAPRUF

**COMPANY
PROFILE**



INTRODUCTION

LOCAL CAPACITY & INTERNATIONAL MARKET

History

VODAPRUF Pte Ltd was founded in Year 2013, focus in the manufacturing of Lightherm (Lightweight Concrete), and recent year branched into the manufacturing of vPanel (ALC Panel - Aerated Lightweight Concrete Panel).

Our Factory

Is located in Kulai, Johor Bahru (Malaysia) which is only 35km from Singapore, producing Lightherm & vPanel (ALC Panel). Our sales office is located in Singapore.

Time Line

Year 2013

Incorporated in Singapore by Managing Director Wang Wee Hwa, started operation as a trading company.

Year 2014

Rented first office in Singapore, set up packing machinery for Lightherm manufacturing.

Year 2015

Shifted production plant to Malaysia, started EPS (expanded polystyrene) manufacturing in Senai, Johor Bahru.

Year 2016

Set up second factory to produce vPanel (ALC Panel) in Kulai, Johor Bahru.

Year 2017

Expanded factory over a 2 acres land.

Year 2018

- Acquired more than 230 projects for Lightherm concrete project.
- Franchise - Manufacturing - Partner in Korea, China and Phillipines.

Year 2019

- Set up branch in Sarawak (Malaysia) producing vPanel - Block (ALC Block - Aerated Lightweight Concrete Block).
- Set up branch in Northern Island (UK) producing Lightherm (Lightweight Aggregate).

Year 2020

- vPanel production reaches an annual production capacity of 280,000m2.
- vPanel has been installed for more than 30 projects in both the private and government sectors. These include projects by HDB, MOH, JTC and other commercial and industrial projects, such as, data centres, food factory, manufacturing facilities, chemical plants and private residential projects.



Cost Effective Semi Automated Production with a Productivity of 28,000M2 Per Month.



In - House Logistic for Just - In - Time Delivery.



vPanel - Block (ALC Block - Aerated Lightweight Concrete Block).



Branch in Northern Island (United Kingdom), Producing Lightherm Lightweight Aggregates.



Franchisee in Phillipines (Local Production).



Franchisee in Korea (Local Production).



Although all efforts have been carried out to ensure that the information provided is accurate and up to date, the Registrar will not be liable for any losses arising from any inaccurate or omitted information.

CORPORATE INFORMATION

Name : VODAPRUF SDN. BHD.

Last Old Name : Nil

Date of Change : Nil

Registration No. : 201501036593 (1161914-H)

Incorporation Date : 12-10-2015

Type : LIMITED BY SHARES
: PRIVATE LIMITED

Status : EXISTING

Registered Address : NO. 47B, JALAN JATI 2,
TAMAN NUSA BESTARI JAYA,
SKUDAI
JOHOR

Postcode : 81300

Origin : MALAYSIA

Business Address : K16, K51, LOT 32742, BATU 17
JALAN TEE TECK SAN
SALENG
SENAI
JOHOR

Postcode : 81400

Nature of Business : MANUFACTURE OF BUILDING MATERIALS



Whilst every endeavor is made to ensure that information provided is updated and correct, ACRA disclaims any liability for any damage or loss that may be caused as a result of any error of omission.

Business Profile (Company) of VODAPRUF PTE. LTD. (201329658R)

Date: 01 Oct 2024

Name of Company : VODAPRUF PTE. LTD.

Former Name if any :

Date of Change of Name :

UEN : 201329658R

Incorporation Date : 01 NOV 2013

Company Type : EXEMPT PRIVATE COMPANY LIMITED BY SHARES

Status of Company : LIVE COMPANY

Status Date : 01 NOV 2013

Registered Office Address : 133 CECIL STREET
#11-01A
KECK SENG TOWER
SINGAPORE (069535)

Date of Address : 01 OCT 2024

Date of Last AGM : 28 JUN 2024

Date of Last AR : 10 JUL 2024

FYE As At Date of Last AR : 31 DEC 2023

Business Activities

Primary Activity : WHOLESALE TRADE OF A VARIETY OF GOODS WITHOUT A DOMINANT
PRODUCT(46900)

Primary User-Described Activity :

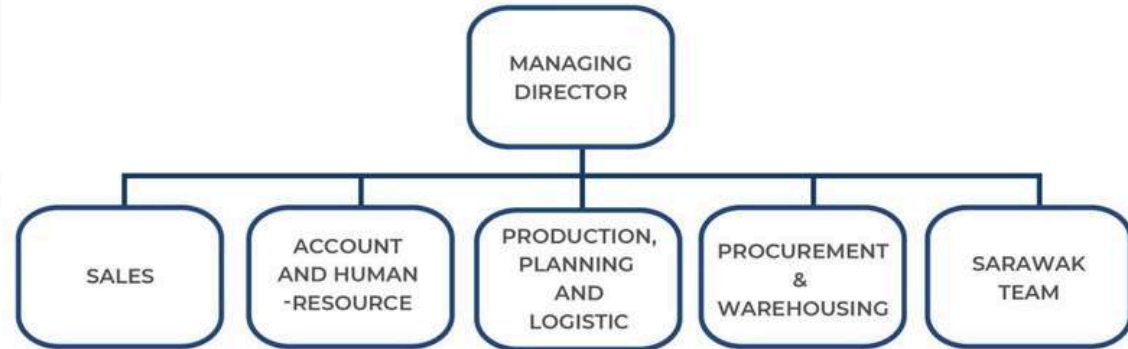
Verify Document Instantly

Check if this document is issued
by ACRA.

<https://www.acratrustbar.gov.sg/verify/yRJxqyyhMJ>



ORGANIZATION STRUCTURE



CORPORATE VISION

To be a global leader in precast wall / block manufacturing through product customizer & chemical technology advancement.

CORE VALUE



To come out with new creative ideas that have the potential to accelerate the building industry advancement.



To act with honesty and integrity towards our

- *Investor*
- *Supplier*
- *Customer*
- *Employee*



To serve the society and industry, and is driven by passion.

PRODUCT 1:

vPANEL

Non autoclaved lightweight
thermal insulation panel





Pain of Conventional Wall

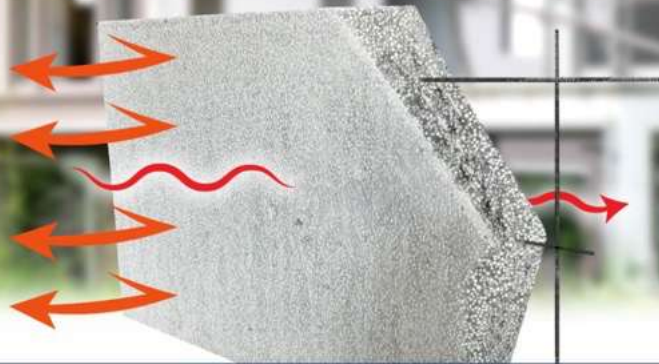


VODAPRUF

Next-Gen Wall Panel :

Build Smarter, Lighter and Save Electricity Bills

With LIGHTERM vPanel



10x Better Heat Insulation Than Brick Walls



No Plastering
Needed



8x Faster
Installation



4x Lighter Than
Brick Wall

www.vodapruf.com

+601136617014

VODAPRUF

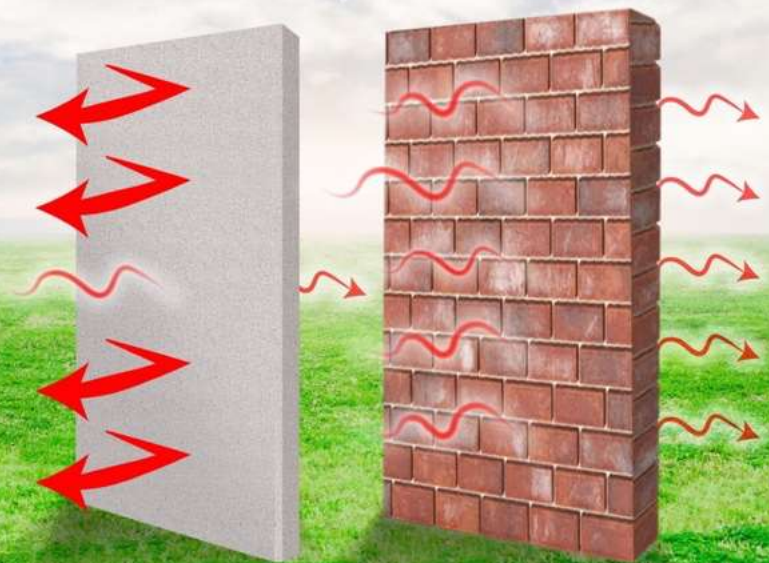


10X BETTER HEAT INSULATION

LIGHTERM
vPanel

VS

Red
Bricks



LIGHTERM vPanel - A Smarter Choice

www.vodapruf.com

+6011-3661 7014

Best Insulation Among Solid Wall

Thermal Conductivity, (W / mK)					
Traditional	Lightweight	AAC	Brick	Hollow Core	vPanel
Concrete	Concrete	Brick	Wall	Panel	Wall
1.4-1.8	0.1-0.3	0.16	1.31	0.1739	0.125



Week 1:
Lay the
Foundation

Week 2:
Install
VODAPRUF
vPANEL

**Don't Wait
A Year!
This Is How
Our Customer Did It!**



Red Bricks

- ⌚ Slow
- 🏠 Heavy
- 🕒 Outdated

VS



LIGHTherm vPanel

- 🦋 4x Lighter
- ⌚ 8x Faster Installation

Week 3-4:
Roofing and
Skim Coating*

8x Faster Installation

www.vodapruf.com +601136617014

Week 5:
Finishing
Touches and
Fitting Works

Lightherm vPanel



✓ 45KG

Weight

Productivity
(m² Per Man Per 8 Hour)

✓ 20

Thermal Conductivity
(w/Mk)

✓ 0.124

Direct Skim Coat
(w/o Plaster)

✓ Yes

Avoid Stagnant
Water in Wall

✓ Yes

Cost of Supply
& Install

within RM120

Cost of Supply and
Install Plaster 2 Layer
(Per m²)

Zero
(not required)

Total Cost Supply
Install to Receive Paint
Finishing (Per m²)

within RM100

Hollow Core Panel



✗ 150KG

✗ 10

0.900

✓ Yes

✗ No

within RM120

Zero
(not required)

within RM100

Bricks



✗ 220KG

✗ 4

1.340

✗ No

✓ Yes

RM50

25+25 = 50

RM100

Equivalent Pricing

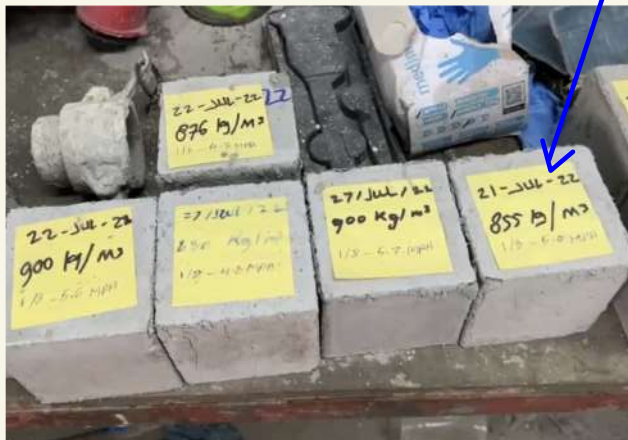
VODAPRUF Inventions & Innovations

1. Non Autoclaving Chemical Tech



MORE THAN 650+ TRIAL DONE BY VODAPRUF (PICTURE SHOWING THE WASTAGE)

VPanel range of product at density 900kg/3m achieve 5.5mpa and 680kg.m3 achieve 3.5mpa . We are the only players globally that can produce such high strength non autoclave product at a very low cost point



- Lightherm Drymix 650kg/m3
- Lightherm Drymix

LIGHTWEIGHT PANEL

- VPanel non autoclave Block
- VPanel non autoclave Panel
- VPanel non autoclave Jumbo Block
- VPanel Manufacturing Line
- VPanel Foaming Chemical

CHEMICAL BREAKTHROUGH

FIRST IN THE WORLD , PATENTING TECHNOLOGY

After more than 600+ trial and error, our advance chemical technology enables the elimination of autoclaving of conventional lightweight products manufacturing.

Chemical H(to Dose during the cement mixing phases)

- Main role: to prevent shrinkage crack during installation phase of the product at site
- Secondary role : Ensure there is no risk of "powdery" during the cake setting phase .

Chemical O (Foaming Chemical)

- Provide foaming ability while ensuring the foam does not react with cement and causes the strength of cement to be drastically reduce like other synthetic foaming agent.
- Ensure the foam is produce at the lowest density to ensure lowest water cement ratio. This shall ensure high strength of product.
- Provide a proper key linkage between cement particle to ensure there is no micro crack that might reduce the cake strength over time
- Provide strength to the foam concrete so it stability is high and does not collapse during the curing phase

Core technological breakthroughs by Vodapruf

Primary Invention (OUR BUSINESS KEY STRENGTH!)

1. CHEMICAL (SECRET RECIPE), Through more than 650+ trial and error , we managed to eliminate autoclaving procedure through advance foaming and chemical technology.
2. COMPRESSIVE STRENGTH of the ALC block at density 650kg/m3 are able to maintain as per industry standard of 3.5 Mpa (World 1st company to achieve such strength without autoclaving)
3. SPECIAL mould oil that does not cause the foam bubble to burst.

Secondary Invention

4. CUTTING Special cutting system that cut through the cake while it is not semi-set , yet ensuring it does not stick back (world first pioneer)
5. MOULDING Special moulding system that easily dismantle and install back , while ensure the grout do not easily stick to the steel mould
6. MIXER Special mixer that reduce the need for heavy cleaning after each operation
7. LOW PRODUCTION COST ability to produce at low cost even at a small scale investment



Chemical System



Grove Foaming System

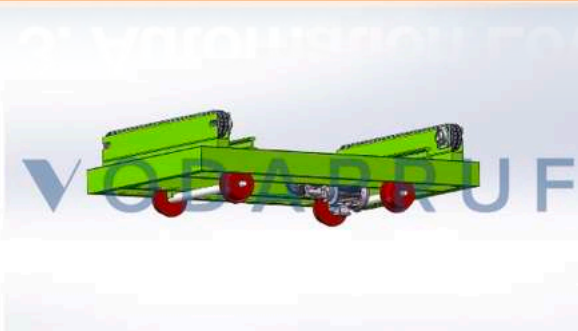
VODAPRUF Inventions & Innovations

2. Precision Manufacturing Tech



VODAPRUF Inventions & Innovations

3. Automation Low Production Cost



Fully automated self moving and self parking mechanism



VODAPRUF-DESIGNED CAKE TURNING MECHANISM

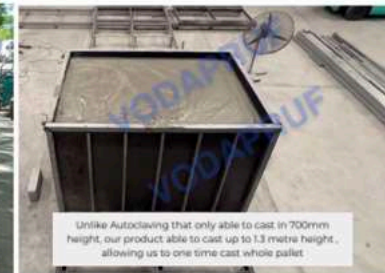
(VODAPRUF PATENTING TECHNOLOGY)

Semi automated cake turning mechanism using hydraulic system

Enhance with system to ensure the cake doesn't stick back upon cutting



vPanel turning table



Unlike Autoclaving that only able to cast in 700mm height, our product able to cast up to 1.3 metre height, allowing us to one time cast whole pallet



vBlock turning table



After Installation at Facility



VODAPRUF Inventions & Innovations

4. Full Wall system

Wall Panel
Floor Panel Lintel
Stiffener
Steel Member
Plaster
Adhesive
Skim Coat

PRODUCT 2:

LIGHTHERM

**Lightweight Thermal
Insulation Mortar**



500+ Project References (Past)

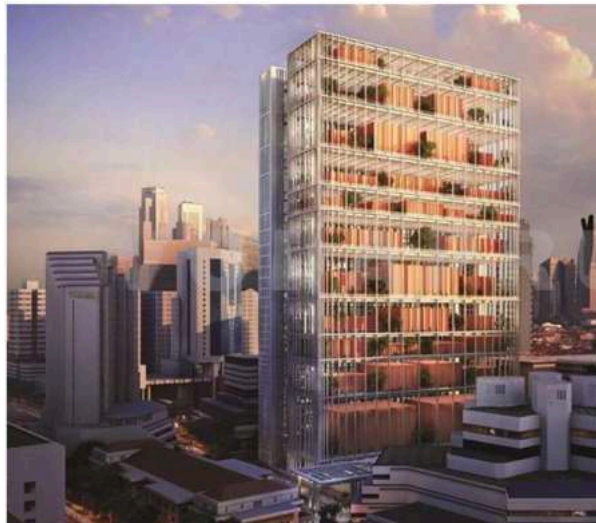
LEGO Factory

15,500m²



Statecourt

20,000m²



APPLE Data Centre

12,000m²



On Going Project

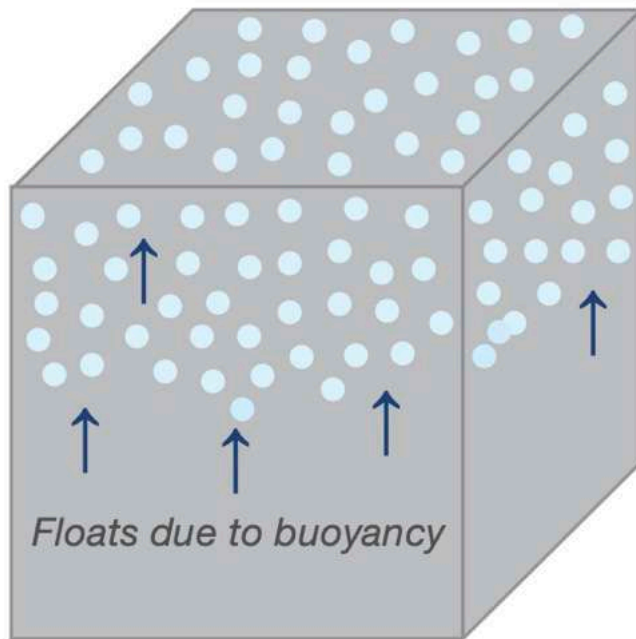
**Singapore
General Hospital**
54,000m²



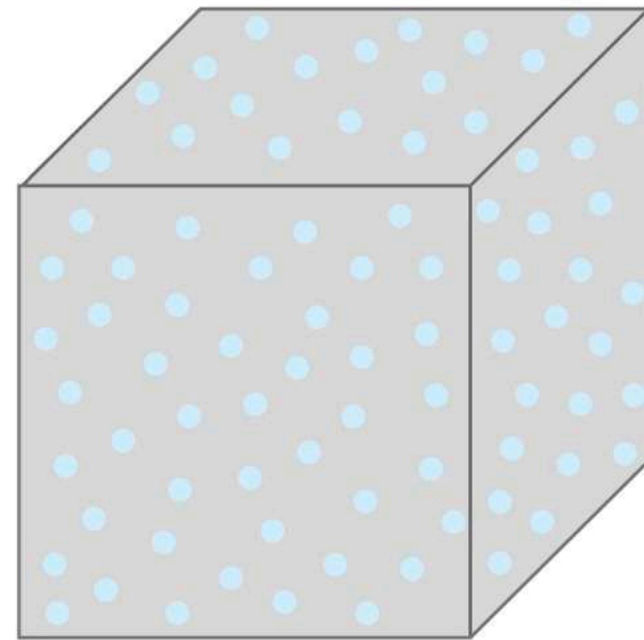
Key Feature



**Normal lightweight
aggregates**

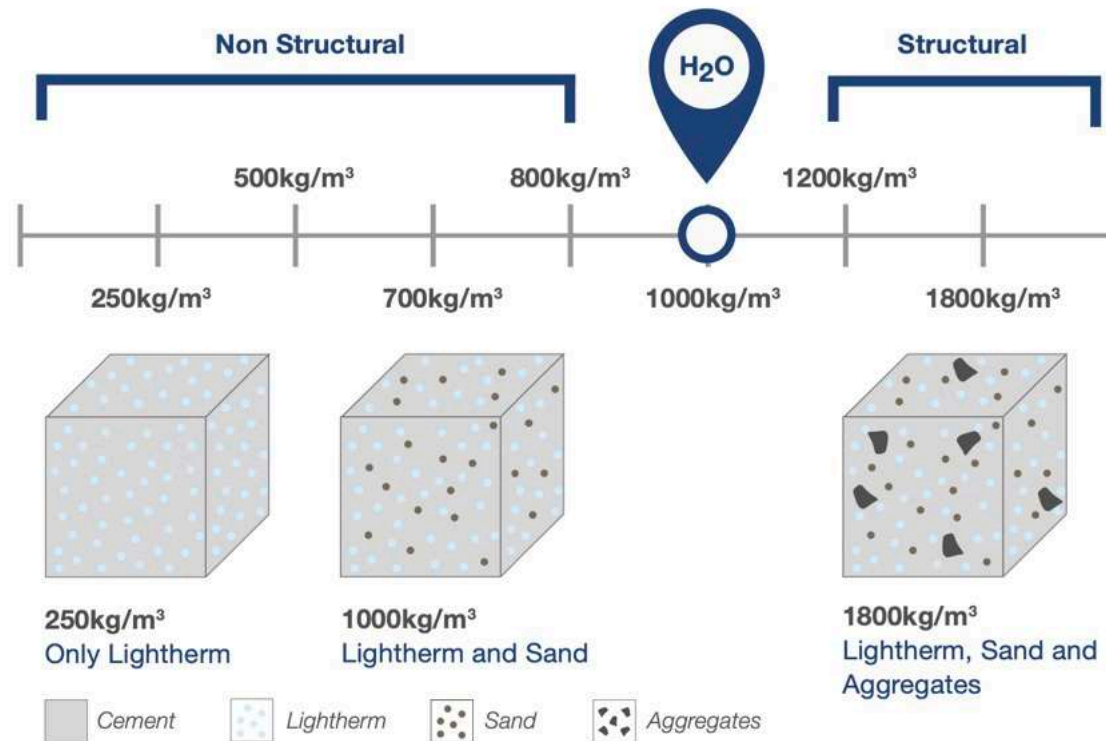


**Lightherm
aggregates**



Density Range

As LIGHTERM blends well with no segregation, concrete/screed with all kinds of density can be made!



Respective Key Plans for the business sustainability?

Respective patent and know-how

LIGHTHERM

- VODA Additives
- Lightherm Aggregate
- Lightherm Drymix Plaster
- Lightherm Drymix 650kg/m³
- Lightherm Drymix
- Lightherm Revolution Machine

VODA Additive is a Vodapruf innovation that after coating on EPS beads, will make it into Lightherm Aggregate, which blends well with cement without segregation. We are the only company in Singapore that has this technology.



LIGHTHERM Drymix Plaster is a Vodapruf innovation that can bond well to wall substrate while providing excellent thermal performance. We are the only company globally that has this technology that can provide such strong thermal property using EPS.



4. Anti Segregation Chemical Technology

LIGHTHERM DRYMIX Plaster is a Vodapruf innovated formulation is only 25% of normal concrete weight, but have an impressive compressive strength of 5.5mpa which is beyond the industry standard (for a density 650kg/m³ concrete) it is thus specified and used in our China client mega project in Shan Xi. We are the only company globally that can produce such high strength at this specific density.



VODAPRUF Inventions & Innovations

5. DRYMIX PREPACKED Different density and strength range

• Lightherm Revolution Machine

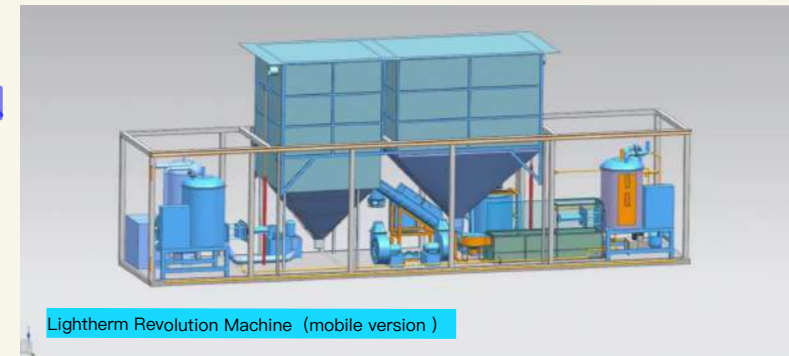
Lightherm Revolution Machine is a specially designed system by VODAPRUF to automate the EPS beads treatment process. In year 2021 we further improved it to be a mobile version that can be brought to site for use and we are the only company globally that provide such technology .



Lightherm Revolution Machine



Lightherm Revolution Machine (mobile version)



Lightherm Revolution Machine (mobile version)

LIGHTHERM DRYMIX is a range of prepacked mortar at different density at different strength cater for different niche. Worth highlighting is our density 1900kg/m3 series achieve a compressive strength of 35mpa. We are the only supplier in Singapore that able to meet the LTA specification for drain grating.

LIGHTHERM Aggregate Mix Design

Theoretical Density, kg/m3	110	250	300	500	700	1000	1200	1400	1600	1800	2000
Wet Density, kg/m3	195	388	465	603	818	1123	1338	1553	1768	1983	2198
After 60 days Dry Density, kg/m3	140	313	375	530	730	1002	1202	1402	1602	1802	2002
Cement, kg	110	250	300	250	250	350	350	350	350	350	350
Sand, kg	0	0	0	200	400	540	740	940	1140	1340	1540
Water lower range, litre	85	138	165	153	168	233	248	263	278	293	308
Water highest range, litre	95	155	186	170	185	258	273	288	303	318	333
LIGHTHERM, litre	1000	1000	927	872	764	581	473	365	257	149	41
Strength, MPA	NA	0.85	0.95	0.95-1.3	1.3-1.8	2.5-3.5	3.5-6.5	5.5-8		8-15	
Thermal Conductivity, W/m.k	0.041	0.067	NA	0.082	0.145	0.195	0.305	0.385	0.405	NA	NA
Weight Reduction	95%	90%	88%	79%	71%	58%	50%	42%	33%	25%	17%

** STRICTLY measure the EPS by volume (litre), DO NOT measure by weight (kg) !!!

*** Always start the water dosage with the lower range, then increase slowly within the highest water range. Adjust within the water range to achieve a required flow/liquidity /slump value



LIGHTHERM DRYMIX 1900



USED IN LTA DRAIN GRATING

VODAPRUF Inventions & Innovations

6..Fire Resistant Technology Full Test Report



Start at 1900

Time:										Temperature
10 mins	29	30	29	31	21	28	29	30	30	550°C
20 mins	35	38	38	28	38	42	40	40	40	700°C
30 mins	55	56	57	65	62	53	56	57	58	900°C
40 mins	70	75	72	70	64	65	67	71	66	967°C
50 mins	75	77	76	76	78	78	75	74	77	980°C
60 mins	80	81	85	79	85	83	82	83	80	1010°C
70 mins	88	85	86	82	88	85	89	86	85	1028°C
80 mins	90	88	90	107	103	88	108	101	101	1035°C
90 mins	92	95	101	125	133	116	132	135	131	1050°C
100 mins	117	114	136	145	165	155	167	165	150	1060°C
110 mins	134	146	168	169	169	158	165	168	169	1065°C
120 mins	142	156	172	188	190	198	186	190	198	1075°C

Our Global Vision



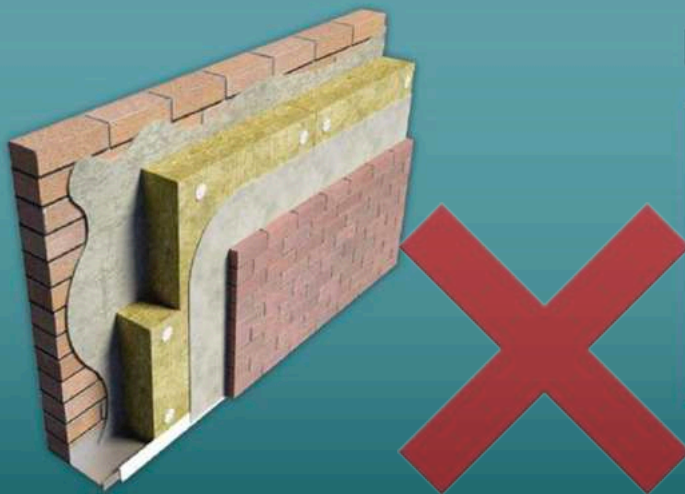
U-value: 0,608 $\text{W}/(\text{m}^2\text{K})$

GEG 2020/24 Bestand $U \leq 0.24$

Contribution to the greenhouse effect:

excellent insufficient

Single Layer Insulation Wall



Insulation Wool System

U-value: 0,634 $\text{W}/(\text{m}^2\text{K})$

GEG 2020/24 Bestand $U \leq 0.24$

Contribution to the greenhouse effect:

excellent insufficient

VODAPRUF