D-ROCK

100% STONE WOOL INSULATION

VERSION 2023

BUILDING INSULATION SOLUTION

THERMAL INSULATION - FIRE PROTECTION - SOUND INSULATION

IBP INTERNATIONAL BUILDING PRODUCTS

IBP (Aust) Pty Ltd
60 Lakewood Boulevard
Carrum Downs Victoria Australia 3201
ABN: 49 613 455 548

AS 1530.1 CERTIFIED
NON-COMBUSTIBLE

AS 1530.3 CERTIFIED
HEAT & SMOKE RELEASE

eurofins

ASTM

CERTIFIED ISO 9001:2015 COMPANY

SGS

SAVINGS

Insulation acts as a barrier to heat loss and heat gain, particularly in roofs and ceilings, walls and floors. In many buildings insulation is the most practical and cost-effective way to make a building more energy efficient, keeping it cooler in summer and warmer in winter and saving up to 46 % in heating and cooling losses, it will improve your comfort at home or office and at the same time lowers greenhouse gas emissions.

Energy savings – Reduces Energy consumption

Economic - Saves money on your energy bills

Environment protection - Lower greenhouse gas emission

COMFORT

THERMAL COMFORT

Comfort all around the year in a building relies on maintaining a good inside temperature regardless of the season. The temperature difference between walls and air can create discomfort. Blowing cold air from the Air conditioning devices decreases the temperature, but increases the sensation of discomfort. Efficient insulation creates homogenous temperature and provides overall thermal comfort.

ACOUSTIC COMFORT

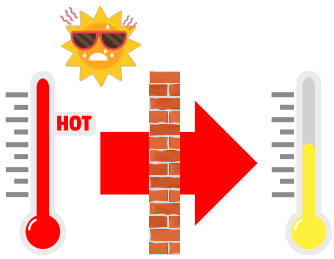
Insulation limits sound pollution. Nowadays noise became one of the major sources of discomfort. Humans need external protection to seal the sound. It is proven fact that the noise can create mental stress and reduce productivity. It is important to consider acoustic insulation to decrease airborne noise coming from outside to inside and other impact noise from upper floors and mechanical noise from ventilation system and machineries like elevators.

THERMAL PERFORMANCE

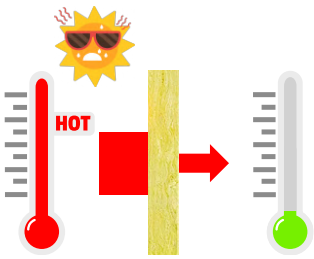
K-value (W/m.K) is the thermal conductivity, characterizing the amount of heat that can be transmitted through the material. The lower the K-value, the better the insulation performance.

Material

High K-Value

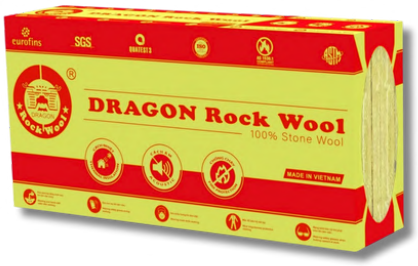


Low K-Value



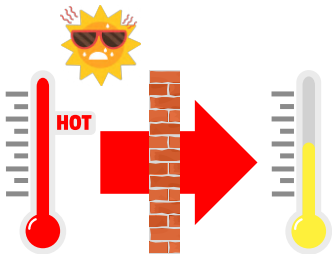
Lower K-Value => better insulation

R-value (K.m²/W) is the measure of resistance of heat flow through a given thickness of the product. R-value is the ratio of the thickness of the material by its thermal conductivity. The thicker the insulation or the lower the thermal conductivity, the higher the R-value. Higher the R-value, better the insulation performance.

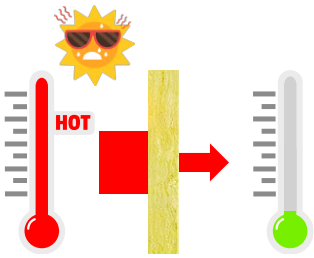


Product

Low R-Value

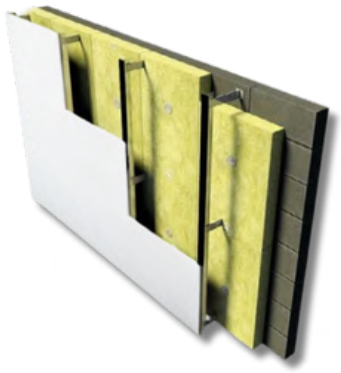


High R-Value



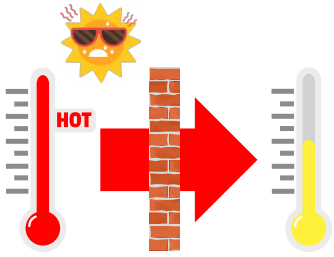
Higher R-Value => better insulation

U-value (W/m².K) are used to measure how effective all the elements of a building assembly (wall, insulation, thermal bridges due to anchors) are in preventing the heat transfer from hot side to the cold side. U-value is reciprocal the Sum of all the R-values of the system components. The lower the U-value, the better the insulation performance.

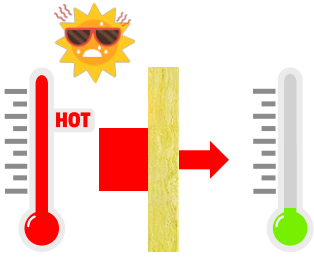


System

High U - Value



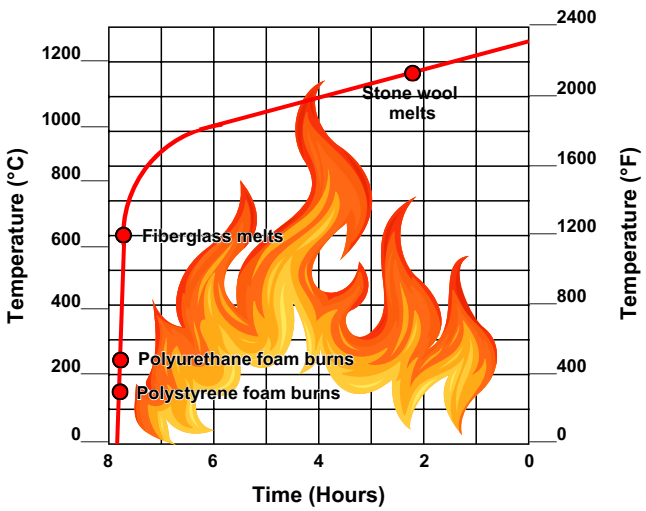
Low U - Value



Lower U-Value => better insulation

FIRE PROTECTION IN BUILDINGS

Fire performance of building materials can be generally described through two characteristics.



1. Reaction to fire – Reaction to Fire means how the material itself reacts in the case of fire. This indicates if the material supplies fuel to the fire before flash-over . Below are the points which needs to be considered in reaction to fire:

- Ignitibility
- Combustibility
- Smoke production
- Toxicity

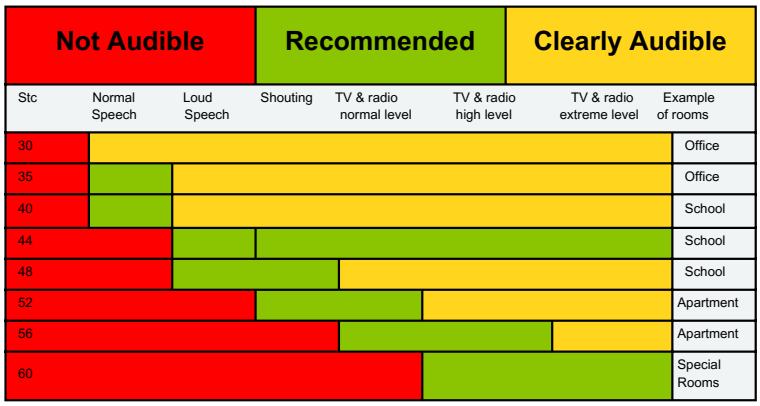
2. Fire Resistance - This indicates how long a passive fire protection system can withstand a fire after flash over (between 45 - 60 minutes...etc.). Below are the points which needs to be considered in fire resistance:

- Construction stability
- Construction integrity
- Temperature rise

ACOUSTIC PERF ORMANCE

SOUND INSULATION SYSTEM

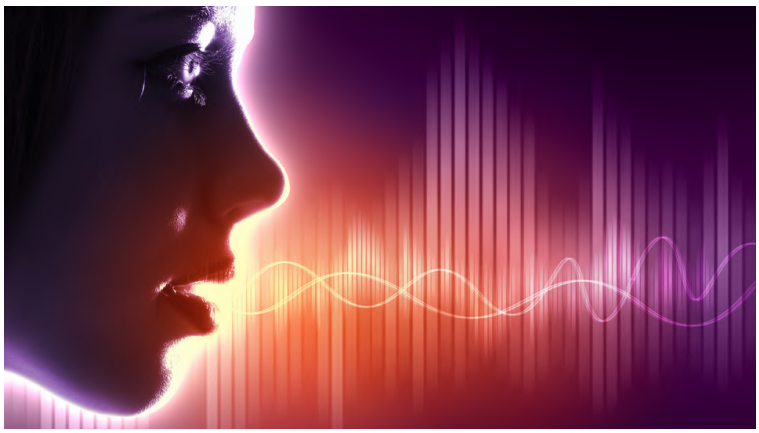
Sound insulation is the term describing the reduction of sound that passes between two spaces separated by a partition element. Level of airborne noise reduction provided by a construction to adjacent areas (speech or music) is measured by the STC value (Sound Transmission Class). STC is a single number rating to specify the reduction in sound levels that system like partition provides. Where the higher the STC rating, better is the acoustic performance.



Recommended for rooms where privacy is required Higher STC, better the sound reduction

SOUND ABSORPTION

Sound absorption is defined as a process by which some of the incident sound energy is absorbed by the material. The choice of material will be influenced by its acoustic efficiency and material thickness, which have the greatest impact on the material sound absorbing properties. A materials sound absorbing properties are expressed by the sound absorption coefficient (alpha), as a function of the frequency. Alpha (α) ranges from 0 to 1.00 which corresponds to 100% absorption.



Stone wool has been classified by IARC as Group 3: not classifiable as to its carcinogenicity to humans. It is degradable and not toxic.

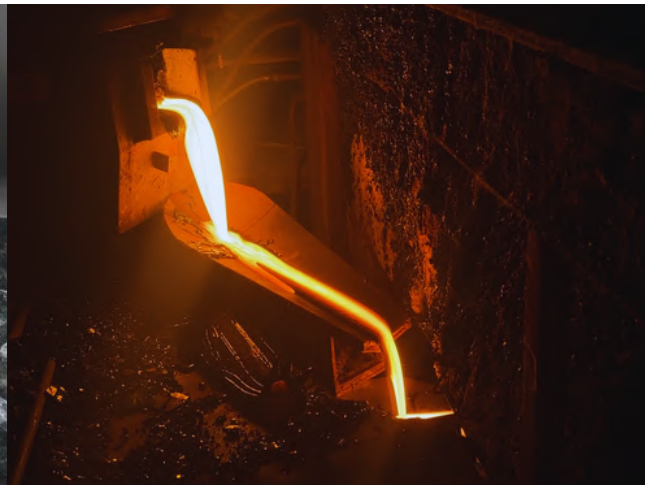
D-ROCK Stone Wool Insulation

D-ROCK Stone Wool Insulation (DRAGON Rock Wool) for building insulation are manufactured from basalt (a type of volcanic rock) limestone and dolomite that are melted at a temperature of 1,300~1,500°C to form liquid lava and passed through the device to form fibers.

Deemed not combustible when tested to AS/NZS1530.1,
D-ROCK Stone Wool Insulation outperforms most other insulation materials with fire performance.

D-ROCK Stone Wool Insulation has a burning point of 1,000°C, meets high-temperature fire prevention conditions. With high heat-blocking ability to effectively prevent heat loss and save energy.

D-ROCK Stone Wool Insulation is completely inactive CFCs, HCFC and asbestos. No CFCs, HFCs, HCFCs, or asbestos are used in the manufacture.



HIGH TEMPERATURE RESISTANCE:

D-ROCK Stone Wool Insulation products use special formula and matured manufacturing technique, with service temperature up to 650°C.

D-ROCK Stone Wool Insulation is non - combustible and does not emit any toxic fumes.

D-ROCK Stone Wool Insulation have a melting point at temperature of more than 1000°C, which a good response for the conditions of the protection at high temperatures.

PERFECT THERMAL CONDUCTIVITY:

D-ROCK Stone Wool Insulation products have evenly - distributed microporous structure, which helps maintain insulation for a long time.

D-ROCK Stone Wool Insulation provides effective protection against both cold and heat. It allows you to enhance your building performance solutions to dramatically reduce heating, cooling, and ventilation costs, creating a comfortable environment and reducing energy costs.

SOUND ABSORPTION:

D-ROCK Stone Wool Insulation can be used for both purposes. With interlocking fibrous lugs, open and non-directional fibers, D-ROCK Stone Wool Insulation helps to absorb and suppress sound, effectively reducing noise in two ways, firstly by reducing transmission sound waves in the air, and the second is noise reduction of impact noise based on vibrations passing through its structure.

LONG LASTING:

D-ROCK Stone Wool Insulation is made by melting basalt (a type of volcanic rock) limestone and dolomite rock which is spun into fibers and bonded into slabs, pipe sections or wired mats.
Relying on trapped air for its thermal properties, the use of natural / inorganic materials and our unique production process ensures a long lifetime. D-ROCK Stone Wool Insulation will give effective protection and ensure an optimal performance for the lifetime of the insulation.

SUSTAINABILITY:

D-ROCK Stone Wool Insulation is actively and passionately dedicated to advancing the construction industry toward a sustainable future, Planet & People.

It starts with a continuous focus on everything that improves the environmental quality, affects our products' sustainability and long term performance.

Our state of the art manufacturing facilities uses latest technology to produce mineral wool with sensibly sourced raw materials and energy. Our stone wool products are 100 % recyclable. D-ROCK Stone Wool Insulation is contributing in LEED certification.

INTERNAL WALL

The perimeter walls of the building can be effectively insulated from inside the building for thermal and acoustic benefits. Internal wall insulation reduces the heat gain through walls during summer and heat loss during winter offering enhanced thermal comfort with minimum dependency on air conditioners. The insulation also reduces traffic noise and other noise disturbance entering the building.

D-ROCK Stone Wool Insulation faced with gypsum board on one side and unfaced or Aluminum Foil in between. It is used on the inner surfaces of exterior walls, adjacent walls, internal walls of the buildings, periphery walls of staircases and elevator shafts and as internal wall framed buildings for fire safe, thermal and sound insulation purposes.

ADVANTAGES

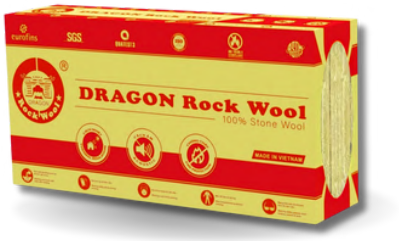
- Acoustic Performance
- Thermal Insulation
- Improved comfort
- Durable
- Fire Performance
- Improve indoor air quality
- Can be implemented during renovation/ upgrade

Product Code	DRT40	DRT60	DRT80	Standard
Density	40kg/m³	60kg/m³	80kg/m³	ASTM C302
Thickness	50 - 150mm	25 - 150mm	25 - 150mm	
Dimension	Length 1200mm - Width 600mm			
Fire Performance	Non - combustible A1 Fire Class			ISO EN 1182:2010 EN 13501.1 AS 1530.1 ASTM E136
Reaction to Fire (DR)	Flame spread index: < 25 - Smoke developed index: < 50			ASTM E84 (UL 723)
Fire Hazard Properties (DR)	Indices - 0,0,0,2			AS/NZS 1530.3:1999
Fire resistance Test (DR)	N/A		Minutes -/180/120	AS 1530.4:2014
Thermal Conductivity	0.037 W/m.K	0.036 W/m.K	0.036 W/m.K	ASTM C518
R-value at 50mm thickness	1.35 m²K/W	1.39 m²K/W	1.39 m²K/W	
Water Vapor Sorption	< 1%			ASTM C1104
Low - VOC	Pass			ASTM D5116
Noise Absorption Co-efficient at 50mm (NRC)				
125 Hz	0.14	0.16	0.15	EN ISO 354 ASTM C423
250 Hz	0.48	0.62	0.59	
500 Hz	0.90	0.96	0.93	
1000 Hz	1.01	1.00	1.00	
2000 Hz	0.94	0.96	0.93	
4000 Hz	0.90	0.89	0.89	
NRC	**0.85**	**0.9**	**0.85**	
Other destiny and dimension are available on request. Please contact us for more detail				

1. The R-Value is calculated based on the thermal conductivity K-Value and the thickness. The higher the R-Value, the greater the insulating capacity.
2. All values in specifications have been tested in a regulatory accredited 3rd party laboratory. Tolerance all results will usually have a tolerance of ±10%.

PARTITION WALL

Partition wall is a lightweight, non - load bearing wall structure. Normally partition walls are made of gypsum board with insulation as infill. It is primarily used as a sound resisting wall in a residential, commercial and industrial buildings. It is an alternative to brick wall that can offer high acoustic and fire resistance with minimum wall thickness. Partition wall can offer sound reduction up to 60 dB and fire rating up to 2hr with suitable construction.



D-ROCK Stone Wool Insulation are fire safe and have good noise reduction properties. The products can be used in normal and fire rated partition walls, stairwells and elevator shafts, adjacent walls.

ADVANTAGES

- Acoustic Performance
- Non-combustible
- Light in weight
- Easyto handle and install
- Reducethe load on structure
- Saves floor space
- Cost saving

Product Code	DRT40	DRT60	DRT80	Standard
Density	40kg/m³	60kg/m³	80kg/m³	ASTM C302
Thickness	50 - 150mm	25 - 150mm	25 - 150mm	
Dimension	Length 1200mm - Width 600mm			
Fire Performance	Non - combustible A1 Fire Class			ISO EN 1182:2010 EN 13501.1 AS 1530.1 ASTM E136
Reaction to Fire (DR)	Flame spread index: < 25 - Smoke developed index: < 50			ASTM E84 (UL 723)
Fire Hazard Properties (DR)	Indices - 0,0,0,2			AS/NZS 1530.3:1999
Fire resistance Test (DR)	N/A		Minutes -/180/120	AS 1530.4:2014
Thermal Conductivity	0.037 W/m.K	0.036 W/m.K	0.036 W/m.K	ASTM C518
R-value at 50mm thickness	1.35 m²K/W	1.39 m²K/W	1.39 m²K/W	
Water Vapor Sorption	< 1%			ASTM C1104
Low - VOC	Pass			ASTM D5116
Noise Absorption Co-efficient at 50mm (NRC)				
125 Hz	0.14	0.16	0.15	EN ISO 354 ASTM C423
250 Hz	0.48	0.62	0.59	
500 Hz	0.90	0.96	0.93	
1000 Hz	1.01	1.00	1.00	
2000 Hz	0.94	0.96	0.93	
4000 Hz	0.90	0.89	0.89	
NRC	**0.85**	**0.9**	**0.85**	
Other destiny and dimension are available on request. Please contact us for more detail				

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CAVITY

A cavity wall is made up of two walls with a gap in between known as the cavity; the outer leaf is usually made of brick, and the inner layer of brick or concrete block, with the cavity being usually filled with Insulation to get an excellent Thermal & Acoustic comfort. Filling the cavity with DRAGON Rock Wool® (100% Stone Wool) insulation material reduces the heat gain during summer and heat loss during winter through the building walls. Not only do the above products also help increase the soundproofing ability of the wall.

D-ROCK Stone Wool Insulation is an un-faced or Aluminum Foil faced slab specifically developed for cavity application.

D-ROCK Stone Wool Insulation achieves best thermal, fire & acoustic performances.

D-ROCK Stone Wool Insulation are flexible, light in weight, easy to install and can compress to save on logistics and onsite space.

ADVANTAGES

- Thermal Performance
- Fire Performance
- Acoustic Performance
- Water Resistance
- Unique Light Weight
- Easy and Fast Installation
- Durability

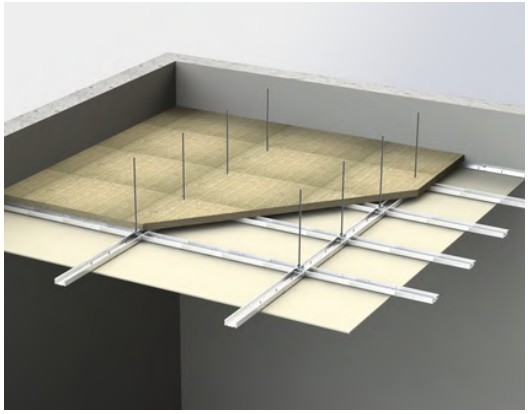
Product Code	DRT40	DRT60	DRT80	Standard
Density	40kg/m³	60kg/m³	80kg/m³	ASTM C302
Thickness	50 - 150mm	25 - 150mm	25 - 150mm	
Dimension	Length 1200mm - Width 600mm			
Fire Performance	Non - combustible A1 Fire Class			ISO EN 1182:2010 EN 13501.1 AS 1530.1 ASTM E136
Reaction to Fire (DR)	Flame spread index: < 25 - Smoke developed index: < 50			ASTM E84 (UL 723)
Fire Hazard Properties (DR)	Indices - 0,0,0,2			AS/NZS 1530.3:1999
Fire resistance Test (DR)	N/A		Minutes -/180/120	AS 1530.4:2014
Thermal Conductivity	0.037 W/m.K	0.036 W/m.K	0.036 W/m.K	ASTM C518
R-value at 50mm thickness	1.35 m²K/W	1.39 m²K/W	1.39 m²K/W	
Water Vapor Sorption	< 1%			ASTM C1104
Low - VOC	Pass			ASTM D5116
Noise Absorption Co-efficient at 50mm (NRC)				
125 Hz	0.14	0.16	0.15	EN ISO 354 ASTM C423
250 Hz	0.48	0.62	0.59	
500 Hz	0.90	0.96	0.93	
1000 Hz	1.01	1.00	1.00	
2000 Hz	0.94	0.96	0.93	
4000 Hz	0.90	0.89	0.89	
NRC	**0.85**	**0.9**	**0.85**	
Other destiny and dimension are available on request. Please contact us for more detail				

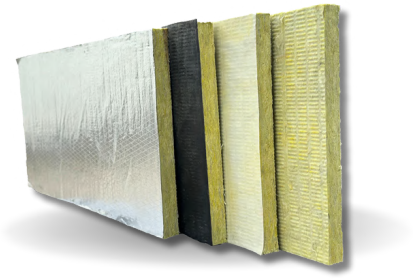
1. The R-Value is calculated based on the thermal conductivity K-Value and the thickness. The higher the R-Value, the greater the insulating capacity.
2. All values in specifications have been tested in a regulatory accredited 3rd party laboratory. Tolerance all results will usually have a tolerance of ±10%.

SUSPENDED CEILING

Suspended ceilings offers exceptional acoustic properties and enhance indoor environmental quality by absorption of noise. They also reduce sound transmission to and from a room or building ,makes sound clear and audible. Suspended ceiling also increases the fire safety as stone wool products are naturally non - combustible.

As the material is installed so high, the soft and absorbent stone wool insulation are safe from mechanical damage. It is easy to install and maintenance free. A sustainable choice to use it in schools, hospitals, shopping malls and offices.





Airborne sound is radically reduced through ceiling insulation. D-ROCK Stone Wool Insulation works by softening the effect of impact sound.

It is used on top of the perforated gypsum for acoustic performance. Product with Black Fiberglass Cloth, Aluminum Foil on facing produced up to your demand.

ADVANTAGES

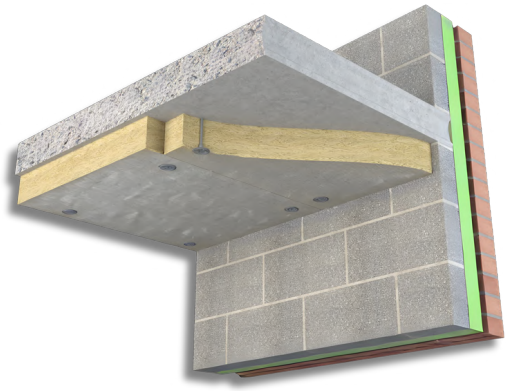
- Acoustic Performance
- Thermal Insulation
- Improved comfort
- Durable
- Fire Performance
- Improve indoor air quality
- Can be implemented during renovation / upgrade

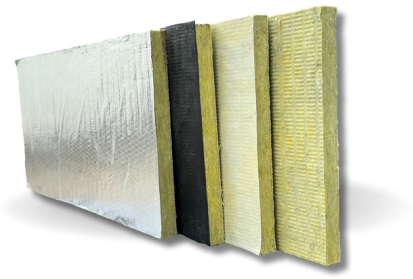
Product Code	DRT40	DRT60	DRT80	Standard
Density	40kg/m³	60kg/m³	80kg/m³	ASTM C302
Thickness	50 - 150mm	25 - 150mm	25 - 150mm	
Dimension	Length 1200mm - Width 600mm			
Fire Performance	Non - combustible A1 Fire Class			ISO EN 1182:2010 EN 13501.1 AS 1530.1 ASTM E136
Reaction to Fire (DR)	Flame spread index: < 25 - Smoke developed index: < 50			ASTM E84 (UL 723)
Fire Hazard Properties (DR)	Indices - 0,0,0,2			AS/NZS 1530.3:1999
Fire resistance Test (DR)	N/A		Minutes -/180/120	AS 1530.4:2014
Thermal Conductivity	0.037 W/m.K	0.036 W/m.K	0.036 W/m.K	ASTM C518
R-value at 50mm thickness	1.35 m²K/W	1.39 m²K/W	1.39 m²K/W	
Water Vapor Sorption	< 1%			ASTM C1104
Low - VOC	Pass			ASTM D5116
Noise Absorption Co-efficient at 50mm (NRC)				
125 Hz	0.14	0.16	0.15	EN ISO 354 ASTM C423
250 Hz	0.48	0.62	0.59	
500 Hz	0.90	0.96	0.93	
1000 Hz	1.01	1.00	1.00	
2000 Hz	0.94	0.96	0.93	
4000 Hz	0.90	0.89	0.89	
NRC	**0.85**	**0.9**	**0.85**	
Other destiny and dimension are available on request. Please contact us for more detail				

1. The R-Value is calculated based on the thermal conductivity K-Value and the thickness. The higher the R-Value, the greater the insulating capacity.
2. All values in specifications have been tested in a regulatory accredited 3rd party laboratory. Tolerance all results will usually have a tolerance of ±10%.

UNDERDECK/ SOFFIT

The fundamental advantage of the under deck insulation is the lower consumption of energy that is spent on cooling space. Soffit acts as a barrier for the solar heat entering inside the building through exposed roof or heat loss through floor like in underground car parking.





D-ROCK Stone Wool Insulation Soffit Slab is designed to fill the void within the soffit, providing a fire, thermal and acoustic barrier between dwellings.

The fundamental advantage of the under deck insulation is the lower consumption of energy that is spent on cooling space. Soffit acts as a barrier for the solar heat entering inside the building through exposed roof or heat loss through floor.

ADVANTAGES

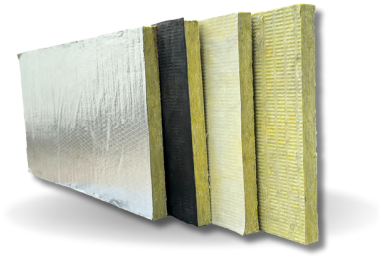
- Thermal Insulation
- Acoustic Performance
- Fire performance
- Improved indoor air quality
- Decreased cooling time
- Energy Savings
- Improved Comfort

Product Code	DSF80	DSF100	DSF120	Standard
Density	80kg/m³	100kg/m³	120kg/m³	ASTM C302
Thickness	25 - 150mm	25 - 150mm	25 - 150mm	
Dimension	Length 1200mm - Width 600mm			
Fire Performance	Non - combustible A1 Fire Class			ISO EN 1182:2010 EN 13501.1 AS 1530.1 ASTM E136
Reaction to Fire (DR)	Flame spread index: < 25 - Smoke developed index: < 50			ASTM E84 (UL 723)
Fire Hazard Properties (DR)	Indices - 0,0,0,2			AS/NZS 1530.3:1999
Fire resistance Test (DR)	Minutes -/180/120	N/A		AS 1530.4:2014
Thermal Conductivity	0.036 W/m.K	0.036 W/m.K	0.035 W/m.K	ASTM C518
R-value at 50mm thickness	1.39 m²K/W	1.39 m²K/W	1.43 m²K/W	
Water Vapor Sorption	< 1%			ASTM C1104
Low - VOC	Pass			ASTM D5116
Noise Absorption Co-efficient at 50mm (NRC)				
125 Hz	0.15	0,17	0.14	ASTM E1050
250 Hz	0.31	0,37	0.40	
500 Hz	0.67	0,49	0.62	
1000 Hz	0.78	0,92	0.89	
2000 Hz	0.79	0,96	0.90	
4000 Hz	0.91	0,98	0.96	
Other destiny and dimension are available on request. Please contact us for more detail				

1. The R-Value is calculated based on the thermal conductivity K-Value and the thickness. The higher the R-Value, the greater the insulating capacity.
2. All values in specifications have been tested in a regulatory accredited 3rd party laboratory. Tolerance all results will usually have a tolerance of ±10%.

FAÇADE

Façade is the external face of a building. Façade insulation functions as a protection barrier against heat, cold, noise and fire. It also keeps the building dry and safe. It is advisable to consider non - combustible insulation in façade applications since it will reduce and delay the fire spread besides offering excellent thermal comfort and acoustics.



D-ROCK Stone Wool Façade / Rainscreen Insulation products are non - combustible and hydrophobic in nature. The products are durable and do not have aging effect. DFC are available either un - faced, or faced with Aluminum Foil or Black Fiberglass Cloth. The product is suitable for all types of ventilated facades system (glass, granite, marble and aluminum).

ADVANTAGES

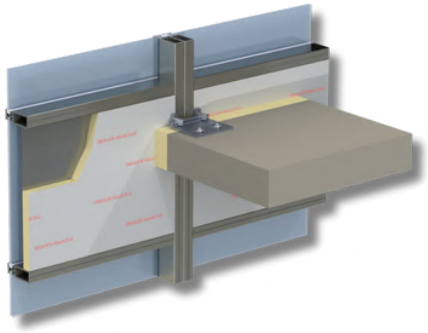
- Thermal Performance
- Effective Fire Performance
- Acoustic Performance
- Water Resistance
- Durability
- Easy and Fast Installation

Product Code	DFC80	DFC100	DFC120	Standard
Density	80kg/m³	100kg/m³	120kg/m³	ASTM C302
Thickness	25 - 150mm	25 - 150mm	25 - 150mm	
Dimension	Length 1200mm - Width 600mm			
Fire Performance	Non - combustible A1 Fire Class			ISO EN 1182:2010 EN 13501.1 AS 1530.1 ASTM E136
Reaction to Fire (DR)	Flame spread index: < 25 - Smoke developed index: < 50			ASTM E84 (UL 723)
Fire Hazard Properties (DR)	Indices - 0,0,0,2			AS/NZS 1530.3:1999
Fire resistance Test (DR)	Minutes -/180/120	N/A		AS 1530.4:2014
Thermal Conductivity	0.036 W/m.K	0.036 W/m.K	0.035 W/m.K	ASTM C518
R-value at 50mm thickness	1.39 m²K/W	1.39 m²K/W	1.43 m²K/W	
Water Vapor Sorption	< 1%			ASTM C1104
Low - VOC	Pass			ASTM D5116
Noise Absorption Co-efficient at 50mm (NRC)				
125 Hz	0.15	0,17	0.14	ASTM E1050
250 Hz	0.31	0,37	0.40	
500 Hz	0.67	0,49	0.62	
1000 Hz	0.78	0,92	0.89	
2000 Hz	0.79	0,96	0.90	
4000 Hz	0.91	0,98	0.96	
Other destiny and dimension are available on request. Please contact us for more detail				

1. The R-Value is calculated based on the thermal conductivity K-Value and the thickness. The higher the R-Value, the greater the insulating capacity.
2. All values in specifications have been tested in a regulatory accredited 3rd party laboratory. Tolerance all results will usually have a tolerance of ±10%.

CURTAIN WALL

Curtain wall systems are a non - load bearing solution for an external wall. Low thermal conductivity and high fire rating of the curtain wall system is important for energy saving and safety. Fire usually spread through spandrel region, it is advisable to use non - combustible insulation materials for such applications for improved safety and this will also provide higher R-value at spandrel locations.

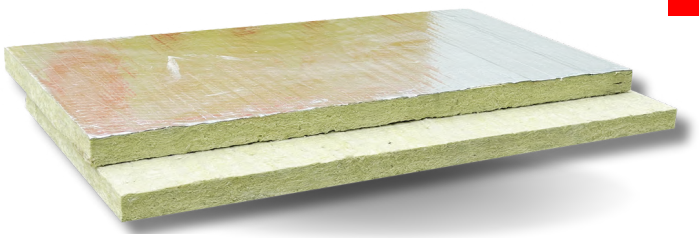


Perimeter joint (edge of slab) separates spaces vertically between floors, and it is needed to facilitate the movement between curtain wall and building structures to avoid excessive loading. Fire naturally spread from bottom to top floors through perimeter joints. Therefore, it is important to stop the spread of fire by sealing these joints through fire rated systems.

D-ROCK Stone Wool Insulation slab is a non-combustible, rigid & semi - rigid stone wool insulation that provides superior fire resistance and sound control.

ADVANTAGES

- Thermal Performance
- Effective Fire Performance
- Acoustic Performance
- Improves comfort
- Easy to handle
- Durable

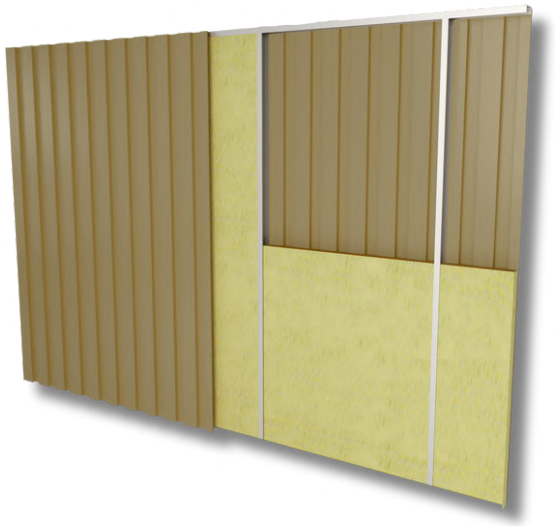


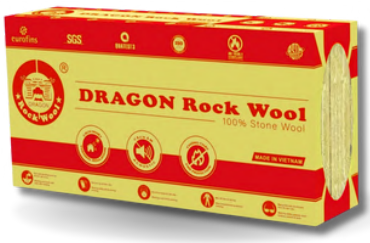
Product Code	DCT80	DCT110	DCT120	Standard
Density	80kg/m³	110kg/m³	120kg/m³	ASTM C302
Thickness	25 - 150mm	25 - 150mm	25 - 150mm	
Dimension	Length 1200mm - Width 600mm			
Fire Performance	Non - combustible A1 Fire Class			ISO EN 1182:2010 EN 13501.1 AS 1530.1 ASTM E136
Reaction to Fire (DR)	Flame spread index: < 25 - Smoke developed index: < 50			ASTM E84 (UL 723)
Fire Hazard Properties (DR)	Indices - 0,0,0,2			AS/NZS 1530.3:1999
Fire resistance Test (DR)	Minutes -/180/120	N/A		AS 1530.4:2014
Thermal Conductivity	0.036 W/m.K	0.035 W/m.K	0.035 W/m.K	ASTM C518
R-value at 50mm thickness	1.39 m²K/W	1.39 m²K/W	1.43 m²K/W	
Water Vapor Sorption	< 1%			ASTM C1104
Low - VOC	Pass			ASTM D5116
Noise Absorption Co-efficient at 50mm (NRC)				
125 Hz	0.15	0,13	0.14	ASTM E1050
250 Hz	0.31	0,37	0.40	
500 Hz	0.67	0,54	0.62	
1000 Hz	0.78	0,77	0.89	
2000 Hz	0.79	0,74	0.90	
4000 Hz	0.91	0,86	0.96	
Other destiny and dimension are available on request. Please contact us for more detail				

1. The R-Value is calculated based on the thermal conductivity K-Value and the thickness. The higher the R-Value, the greater the insulating capacity.
2. All values in specifications have been tested in a regulatory accredited 3rd party laboratory. Tolerance all results will usually have a tolerance of ±10%.

METAL BUILDINGS WALL

Since the steel used in metal buildings is a highly conductive material, a good thermal insulation is a must. Insulation reduces the energy consumption for cooling and the risk of moisture generation by condensation. It also improves the acoustic comfort inside the building.





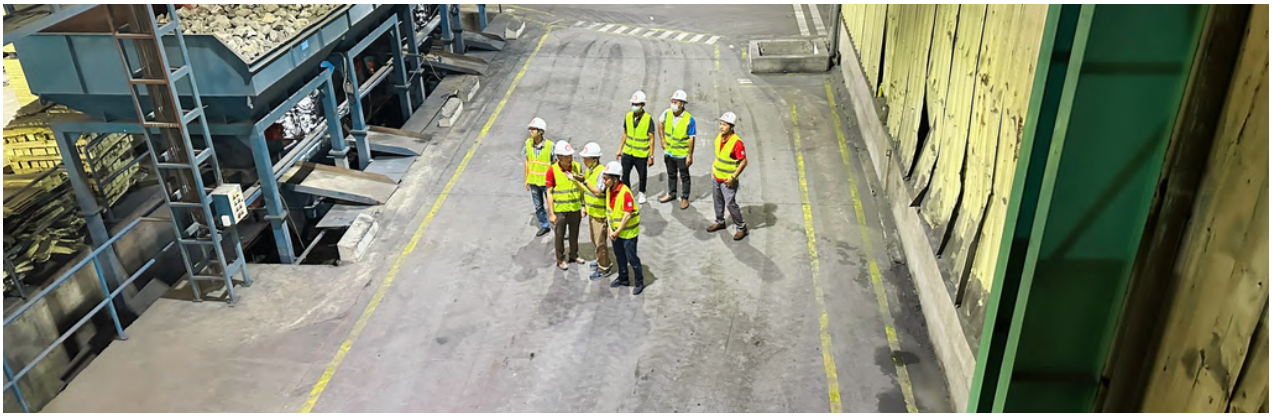
D-ROCK Stone Wool Insulation slab are non - combustible. The products are durable and are available un - faced or with FSK are vapor barrier. D-ROCK Stone Wool Insulation is used for thermal insulation, sound insulation and fire safety in wall cladding of Metallic buildings.

ADVANTAGES

- Thermal Insulation
- Acoustic Performance
- Non - Combustible
- Durable
- Easy to install

Product Code	DRT40	DRT60	DRT80	Standard
Density	40kg/m³	60kg/m³	80kg/m³	ASTM C302
Thickness	50 - 150mm	25 - 150mm	25 - 150mm	
Dimension	Length 1200mm - Width 600mm			
Fire Performance	Non - combustible A1 Fire Class			ISO EN 1182:2010 EN 13501.1 AS 1530.1 ASTM E136
Reaction to Fire (DR)	Flame spread index: < 25 - Smoke developed index: < 50			ASTM E84 (UL 723)
Fire Hazard Properties (DR)	Indices - 0,0,0,2			AS/NZS 1530.3:1999
Fire resistance Test (DR)	N/A		Minutes -/180/120	AS 1530.4:2014
Thermal Conductivity	0.037 W/m.K	0.036 W/m.K	0.036 W/m.K	ASTM C518
R-value at 50mm thickness	1.35 m²K/W	1.39 m²K/W	1.39 m²K/W	
Water Vapor Sorption	< 1%			ASTM C1104
Low - VOC	Pass			ASTM D5116
Noise Absorption Co-efficient at 50mm (NRC)				
125 Hz	0.14	0.16	0.15	EN ISO 354 ASTM C423
250 Hz	0.48	0.62	0.59	
500 Hz	0.90	0.96	0.93	
1000 Hz	1.01	1.00	1.00	
2000 Hz	0.94	0.96	0.93	
4000 Hz	0.90	0.89	0.89	
NRC	**0.85**	**0.9**	**0.85**	
Other destiny and dimension are available on request. Please contact us for more detail				

1. The R-Value is calculated based on the thermal conductivity K-Value and the thickness. The higher the R-Value, the greater the insulating capacity.
2. All values in specifications have been tested in a regulatory accredited 3rd party laboratory. Tolerance all results will usually have a tolerance of ±10%.



OTHER PROJECTS

DA NANG INTERNATIONAL AIRPORT
CAN THO INTERNATIONAL AIRPORT
PHU BAI INTERNATIONAL AIRPORT
PHU QUOC INTERNATIONAL AIRPORT
CAM RANH INTERNATIONAL AIRPORT
TECHO INTERNATIONAL AIRPORT (CAMBODIA)
HANUMAN BEER FACTORY (CAMBODIA)
GENERAL DEPARTMENT OF TAXATION (CAMBODIA)
ROSEWOOD (CAMBODIA)
AEON MALL 1-2-3 (CAMBODIA)
MELIA YANGON (MYANMAR)
COMPLEX BA SON
TECHCOMBANK
THE GLOBAL CITY
DOJI HAI PHONG
METROPOLE THU THIEM
ONE CENTRAL SAIGON
FPT BULIDING
COPI
E TOWN 6
BECAMEX BINH DUONG
THE OPERA RESAIDEN
VIMHOMES CENTRAL PARK
VINMEC CAN THO HOSPITAL
AN GIANG HOSPITAL
DWIGHT SCHOOL HANOI
BRITISH INTERNATIONAL SCHOOL
ACG INTERNATIONAL SCHOOL
VIETNAMESE – GERMAN UNIVERSITY
HOA SEN UNIVESITY
VAN LANG UNIVERSITY
TON DUC THANG UNIVERSITY
FPT CAN THO UNIVERSITY
CGV
GALAXY CINEMA
VINCOM
AEON MALL
BIG C
GO
AN PHU PLAZA
PARK HYATT HOTEL
RENAISSANCE RIVER SIDE HOTEL

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D-ROCK
100% STONE WOOL INSULATION

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