



INSULATION FOR PRE-ENGINEERED BUILDING





SAINT-GOBAIN AT A GLANCE



INSULATION

■ Started in 1937

■ World leader in mineral wool (Isover)

360° IN 360 YEARS

360° is our global reach:

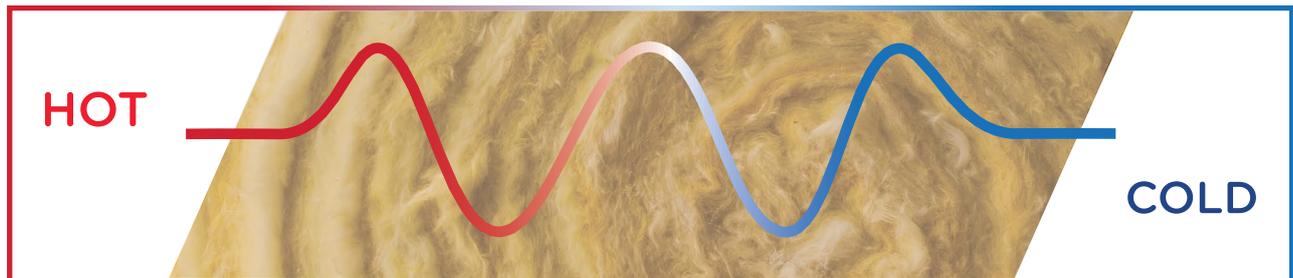
Our 160,000 employees are committed everyday to transforming construction.

360° is our approach:

We create innovative, high-performance, and sustainable solutions for people's well-being and the planet's preservation.

360° is also the overall commitment of Saint-Gobain to MAKING THE WORLD A BETTER HOME.

HOW TO CHOOSE INSULATION FOR PEB



THERMAL RESISTANCE

THERMAL RESISTANCE :

The most important parameter of an insulation by virtue of which it resists the heat flow through it.

THERMAL RESISTANCE, also known as R-value is the function of thickness (T) and thermal conductivity (K-value) of the material

$R \propto T$ Directly Proportional	$R \uparrow = \frac{\text{Thickness} \uparrow}{\text{Conductivity}}$
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In SI unit

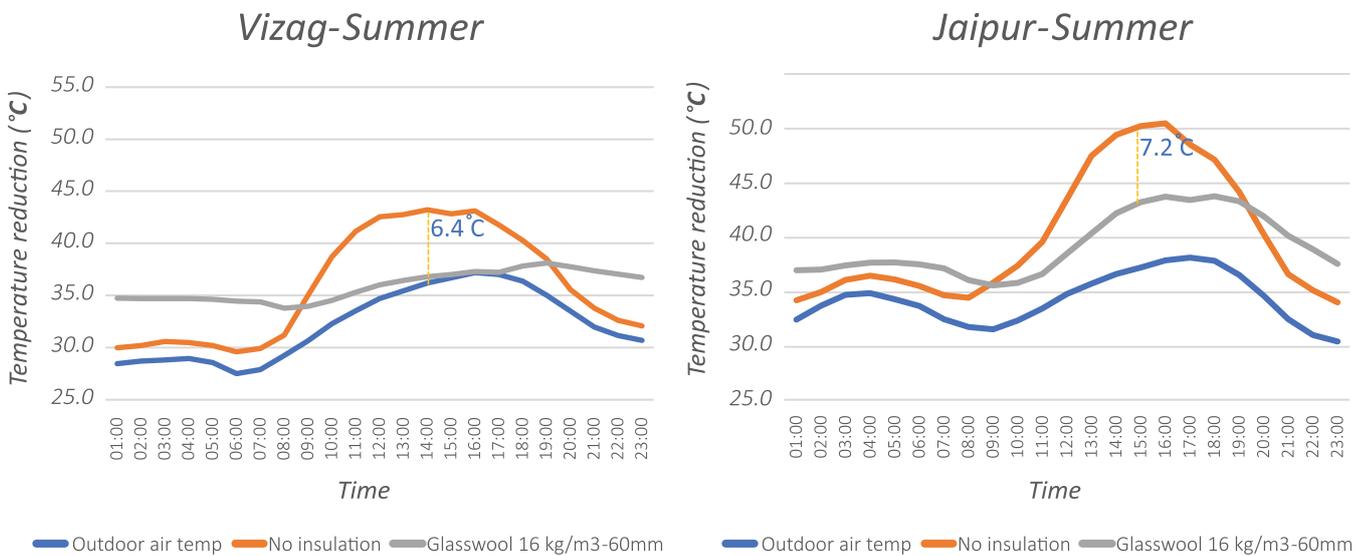
R: m².K/W ; T: Meter ; K: W/m.K

Higher the thickness better is the Thermal Resistance

THERMAL RESISTANCE 'R'

Saint-Gobain Insulation Thickness (mm)	Thermal Resistance (m ² .K/W)
25	0.64 to 0.83
50	1.28 to 1.67
75	1.92 to 2.50
100	2.56 to 3.33
125	3.2 to 4.17
150	3.8 to 5.0

THERMAL COMFORT WITH INSULATION DURING SUMMER



Thermal analysis done by Saint-Gobain Research India

- Metal roof/wall is highly heat conductive in nature generates high temperature during summer.
- Saint-Gobain Insulation solution helps to reduce the heat load by putting high thermal resistance to the heat flow path, hence helps to achieve superior thermal comfort within the PEB.

THE BENEFITS OF OUR INSULATION SOLUTION



Manufacturing

Textile, Automotive, Electronics, Solar etc.

- Improved thermal comfort- better for worker productivity
- Excellent fire safety for human life and machinery
- Reduce risk of moisture condensation - better hygiene and electrical safety
- Rain noise isolation - comfortable working environment



Warehousing

- Superior heat and sound insulation for roof and walls
- Enhances fire safety, protecting lives and goods
- Reduces moisture condensation to prevent damage to stored products and packaging



Poultry

- Better temperature control with up to 15% improvement in output
- Non-combustible insulation for enhanced fire safety
- Reduces rain noise for improved living and hatching conditions

ACOUSTIC COMFORT

External Sources of Noise



Rain & Hailstorm



Aircraft



Loud speakers

How Insulation Helps:

Glass wool and stone wool roof insulation materials absorb noise effectively to reduce transmission through roof/wall. It is defined by Noise Reduction Coeff. (NRC) and Sound Transmission Class (STC).

Insulation Thickness	Noise Reduction Co-efficient NRC
25 mm	0.70 to 0.90
50 mm	Up to 0.95

Roofing	Top Roof sheet	Deck sheet	Insulation thickness	Sound Transmission Class (dB) STC
1	Steel 0.6 mm	Steel 0.6 mm	100 mm	45
2	Aluminium 0.9 mm	Steel 0.6 mm	100 mm	44
3	Steel 0.6 mm	Steel 0.6 mm	150 mm	47-48
4	Aluminium 0.9 mm	Steel 0.6 mm	150 mm	45

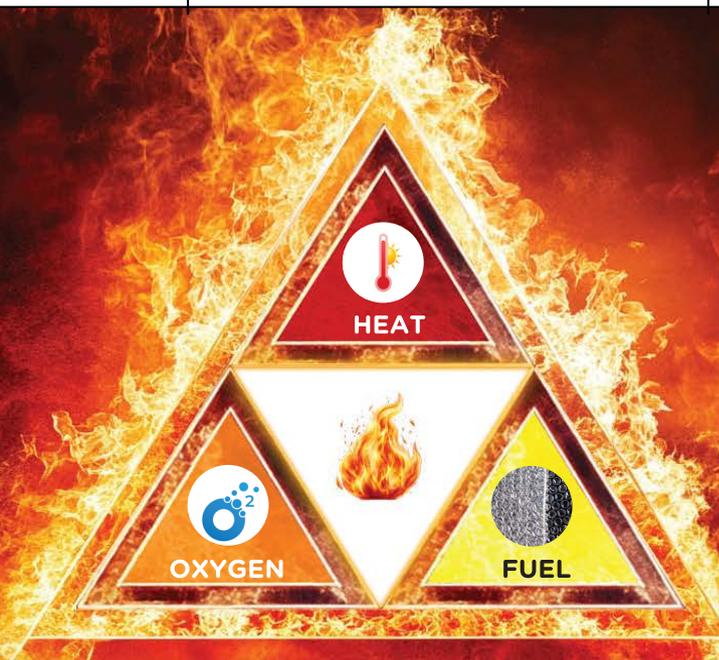
FIRE SAFETY

What National Building Code says about parameters of insulation:

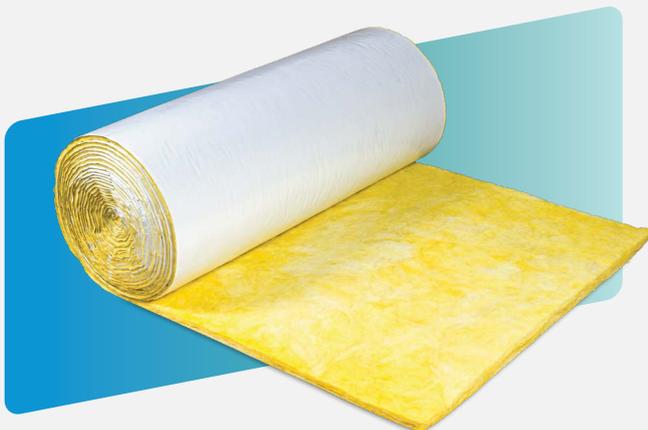
- Non-combustible
- No toxic fumes
- No hazardous smoke

How Saint-Gobain insulation meets the criteria

Parameter	Values	Standards
Non-combustibility	Non-combustible /Reaction to Fire A1 / Incombustible	EN 13501/ IS 8183 / BS 476 Part 4
Surface spread of flame	Class 1	BS 476 part 7
Fire propagation	Class 0, index I<12, sub-index i1<6	BS 476 part 6 and 7



OUR INSULATION SOLUTION FOR METAL BUILDINGS



Twigainsul®

Glass Wool rolls/ boards

Densities	: 10 to 48 kg/m ³
Thickness	: 25 to 130 mm
Width	: 1.1 to 1.2 m
Length	: 7.5 to 30 m
Facing	: FSK, WMP 50, Alu Glass Cloth, WMSG 10, WMSG 50, MRSG, Black Glass Cloth



Rockinsul™

Stone Wool rolls/slabs

Densities	: 40 to 80 kg/m ³
Thickness	: 50 to 100 mm
Width	: 1.1 to 1.2 m
Length	: 5 to 10 m
Facing	: FSK, Alu Glass Cloth

THERMAL PARAMETERS	GLASS WOOL	STONE WOOL
ECBC Compliant Solutions		
Roof U-value: 0.20 to 0.47 W/m ² .K	Density : 16 to 24 kg/m ³ Thickness : 75 to 150 mm	Density : 40 to 48 kg/m ³ Thickness : 75 to 150 mm
Wall U-value: 0.22 to 1.00 W/m ² .K	Density : 16 to 48 kg/m ³ Thickness : 25 to 150 mm	Density : 40 to 96 kg/m ³ Thickness : 50 to 150 mm
High Performance Solutions		
R-value≥ 1.50 W/m ² .K	Density : 16 to 24 kg/m ³ Thickness : 50 to 150 mm	Density : 48 to 96 kg/m ³ Thickness : 50 to 150 mm
Popular Solutions		
R-value: 0.64 to 0.83 W/m ² .K	Density : 16 to 24 kg/m ³ Thickness : 25 mm	Density : 40 to 48 kg/m ³ Thickness : 50 mm

WHY TO CHOOSE SAINT-GOBAIN INSULATION

Important Parameters	Saint-Gobain Insulation		XLPE	Bubble Wrap
	Glass Wool	Stone Wool		
High Thermal Resistance	✓	✓	✗	✗
Acoustic Benefits	✓	✓	✗	✗
Fire Safety	✓	✓	✗	✗
Green Product & Health Safe	✓	✓	✗	✗

FACING OF INSULATION

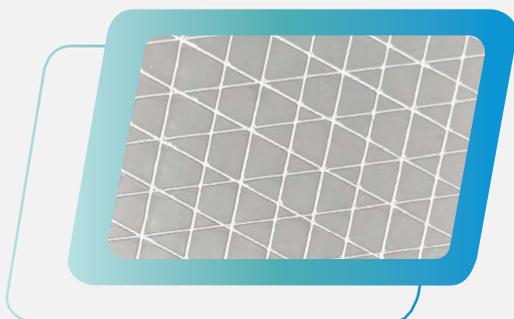
Silver Colour Facing



Foil-Scrim-Kraft, FSK

Description

Multi-purpose aluminium facing
(Available with both Glass Wool
and Stone Wool)

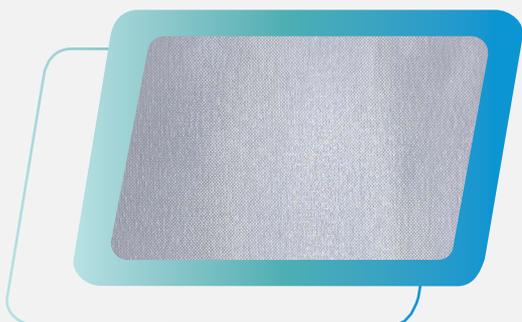


MRSG

Description

Silver coloured foil with reinforcement
(Only available with Glass Wool)

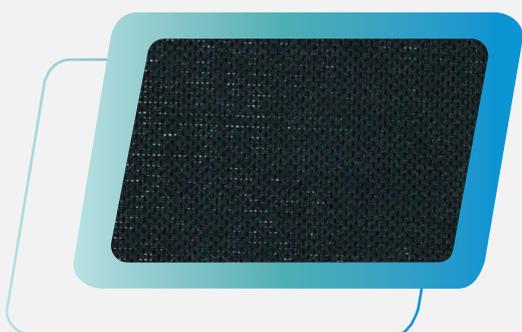
Glass Cloth



Alu Glass Cloth

Description

Aluminium and glass cloth based
high strength facing
(Available with both Glass Wool
and Stone Wool)



Black Glass Cloth

Description

Black coloured textile made of glass yarns
(Only available with Glass Wool)

Polypropylene

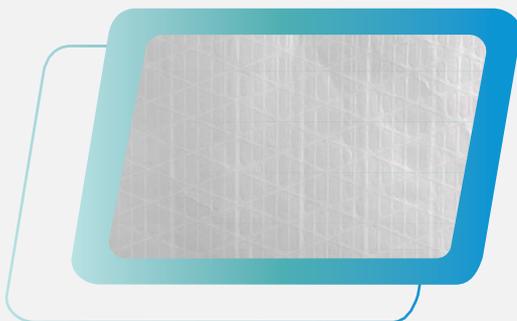


WMSG 10

Description

White kraft backed polypropylene facing

(Only available with Glass Wool)



WMSG 50

Description

High strength white polypropylene with reinforcement kraft and aluminium foil

(Only available with Glass Wool)



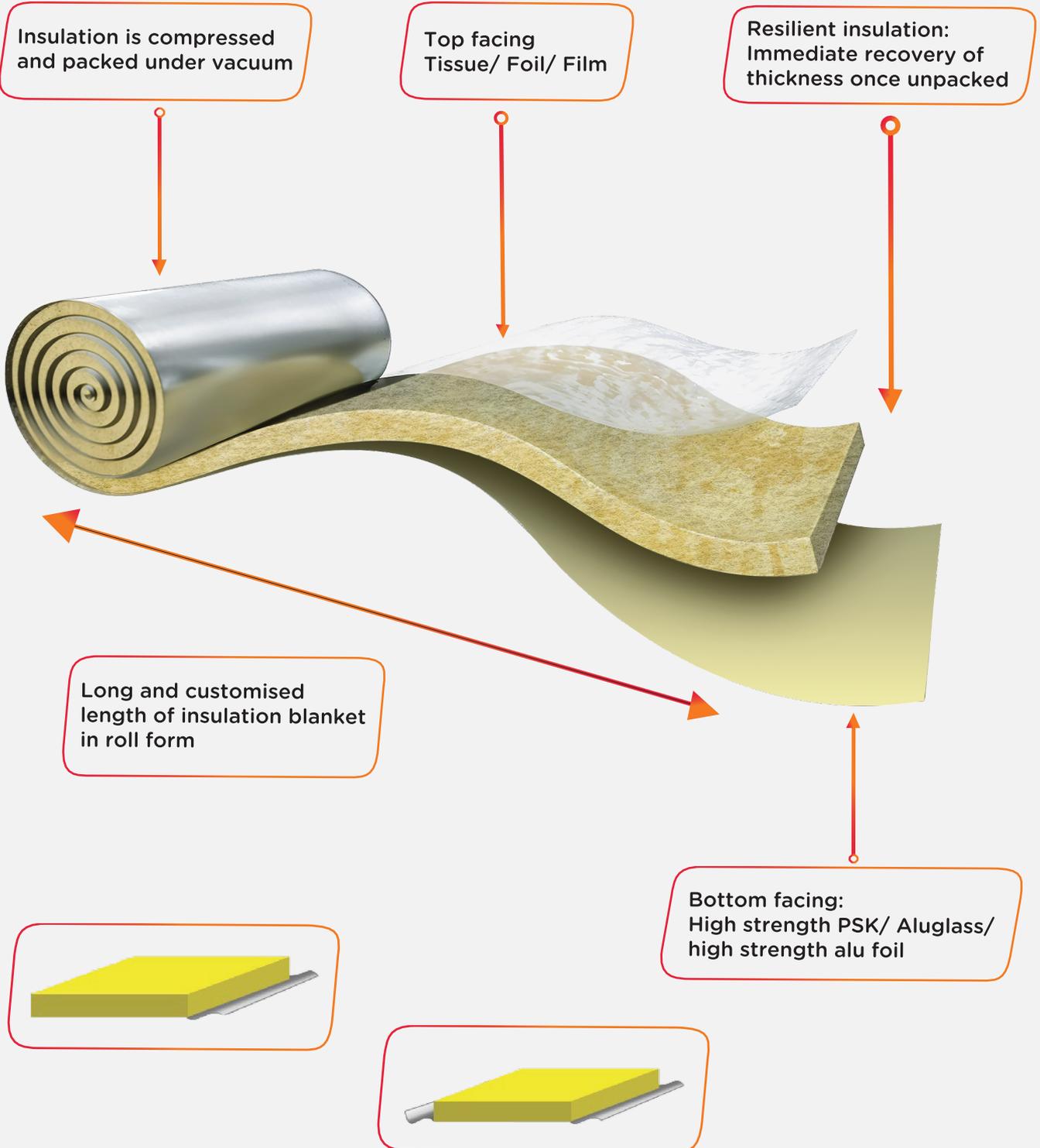
WMP 50

Description

High strength white polypropylene with reinforcement, kraft and metalized polyester

(Only available with Glass Wool)

PEB INSULATION PRODUCT FEATURES



Facing tab on one side or both side

PROJECT REFERENCES:



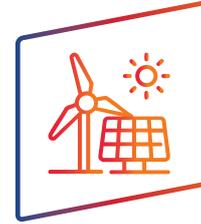
AUTOMOTIVE AND ANCILLARIES

- Maruti Suzuki
- Tata Motors
- MRF Tyres



WAREHOUSING AND LOGISTICS

- Amazon
- Indospace
- Welspun One



RENEWABLE ENERGY

- Reliance Solar
- First Solar
- Renew Power



FMCG

- Nestlé
- Britannia
- Coca-Cola
- PepsiCo



ELECTRICAL AND ELECTRONICS

- LG Electronics
- TEL Components
- Godrej & Boyce

OTHER SEGMENTS



- Textile



- Pharma



- Petrochemicals

EUCEB

European Certification Board for Mineral Wool Products



BCCA 

BCCA

EUCEB CERTIFICATE

BCCA, independent Certification Body designated by the scheme owner EUCESB, declares that all requirements have been met to attest that the products to which the right to use the EUCESB Trademark is granted and that are manufactured by

U.P. Twiga Fiberglass Limited - India
Shil Badlapur Road, Ambarnath (E), N-40, Additional Ambarnath Industrial Area, MIDC, IN - 421 506 Thane

in the plant situated at
Thane

are made of fibres with a chemical composition that lies within the chemical range of the reference fibre
Mineral Wool AA 1

that has successfully been tested

in accordance with Note Q of the Regulation (EC) No 1272/2008 of the European Parliament and of the Council as currently in force

as given in report No 699265 of 2002-02-19.

This certificate is granted on the basis of the Implementation Rules TRA-BEUC-511 for EUCESB Certification of mineral wool products.

N° certificate BEUC-511-27058-481-27058 | Valid from 2024-01-25 until 2027-03-31
 Furnace: Pochet furnace

Issued in Brussels, on 30 January 2024.


Olivier DELBROUCK
 General Manager

The validity of this certificate can be checked on the website www.bcca.be. Further clarification regarding the scope of this certificate and the applicability of the requirements of the standard may be obtained from the certified organisation.

BELGIAN CONSTRUCTION CERTIFICATION ASSOCIATION NPO
 HEADQUARTERS: CANTERSTEEN, 47 BE-1000 BRUSSELS
 OPERATIONAL HEADQUARTERS: HERMESLAAN, 9 BE-1831 DIEGEM
 TEL. + 32 2 238 24 11
 MAIL: MAIL@BCCA.BE | WWW.BCCA.BE



BCCA 

BCCA

EUCEB CERTIFICATE

BCCA, independent Certification Body designated by the scheme owner EUCESB, declares that all requirements have been met to attest that the products to which the right to use the EUCESB Trademark is granted and that are manufactured by

Saint-Gobain India Pvt Ltd - Insulation Business - India
5th Floor, Leela Business Park, Andheri-Kurla Road, IN - 400059 Andheri (East), Mumbai

in the plant situated at
Silvassa - Dadra & Nagar Haveli

are made of fibres with a chemical composition that lies within the chemical range of the reference fibre
Mineral Wool TA 09

that has successfully been tested

in accordance with Note Q of the Regulation (EC) No 1272/2008 of the European Parliament and of the Council as currently in force

as given in report No 02G00027 of 1 May 2001.

This certificate is granted on the basis of the Implementation Rules TRA-BEUC-511 for EUCESB Certification of mineral wool products.

N° certificate BEUC-511-27875-419-27877 | Valid from 2024-04-01 until 2027-03-31
 Furnace: 1

Issued in Brussels, on 1 April 2024.


Olivier DELBROUCK
 General Manager

The validity of this certificate can be checked on the website www.bcca.be. Further clarification regarding the scope of this certificate and the applicability of the requirements of the standard may be obtained from the certified organisation.

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 MAIL: MAIL@BCCA.BE | WWW.BCCA.BE

Glass Wool and Stone Wool are
Bio-Soluble, Non-Hazardous and Health-safe

MAJOR CERTIFICATION



Fire safety certification for Metal building and Duct wrap



BIS License in conformance with IS 8183 standard



Health safe fibers: Certification on Bio-solubility



Indian Green Building Council: Green Product certification



The Energy Resource Institute: Green Product certification

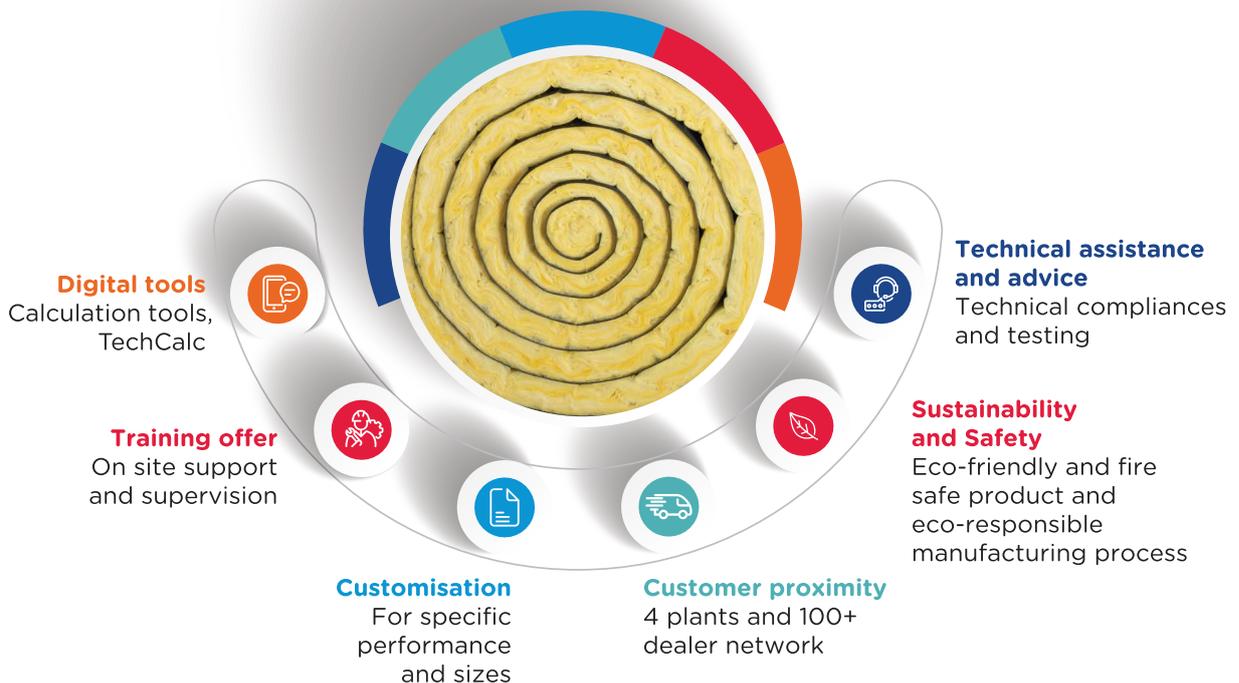


Singapore Green Building Council: Green Product certification



Environmental Product Declaration

WHY SAINT-GOBAIN INSULATION



OUR PRESENCE



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Maharashtra 400 059, India

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