



Industry Insulation



Insulation Solutions for Industry Applications

New CE marking and ISOVER TECH product range

ISOVER
SAINT-GOBAIN



Introduction



Saint-Gobain Group

For more than three centuries, Saint-Gobain has applied its technological expertise and knowledge of markets to supply products that reflect its customers' and partners' needs. The Saint-Gobain Group has acquired a reputation for innovation, responsiveness and productivity.

With its presence in more than 64 countries, Saint-Gobain provides a unique worldwide supply network.

By using the synergies within the various activities Saint-Gobain drives innovation and takes the market lead to deliver the most innovative and adapted customer solution.

ISOVER Technical Insulation

The ongoing rise in energy prices as well as the concern to protect the environment has underlined the urgent need to reduce energy losses and CO₂ emissions. Energy efficiency solutions are therefore at the core of the Saint-Gobain and ISOVER strategy as the world's leading insulation company.

ISOVER Technical Insulation is offering innovative and sustainable solutions for thermal, fire and sound protection for all technical markets such as HVAC, Industry, Marine & Offshore and OEM.



ISOVER Industry Insulation Solutions

Whether for thermal efficiency, personal safety or sustainability in industrial insulation:

ISOVER has developed a complete product range, from cryogenic to operating temperatures of 700°C, for power generation, oil and gas, chemical and other processing industry.

Based on different mineral wool types ISOVER can adapt to any customer need by

offering light and flexible glasswool, high temperature and mechanical resistant stonewool and ISOVER latest innovation – high performing ULTIMATE TECH range for light, energy efficient and sustainable insulation.

Find out more in this brochure about the meaning of CE marking in technical insulation and the new ISOVER CE marked and harmonised product portfolio for industry applications.

CE marking in Technical Insulation

CE marking and EN 14303

Following CE marking in building insulation, finally technical insulation products will get CE marked under the Construction Products Directive (89/106/EEC). CE marking ensures that all marked products are tested according to European standards, complying with European directives or regulations and that the manufacturer respects the safety and quality control rules to place them on the European market.

For mineral wool the harmonised EN 14303 standard *“Thermal insulation products for building equipment and industrial installations”* defines the characteristics to be declared and the test procedures to be followed. Therefore CE marking in technical insulation will provide more transparency and reliability in the market by giving the possibility to compare products with a common reference, increase focus on performance

level and allow specification and use all over Europe.

After the first publication of the EN 14303 in 2009, the CE marking according to it starts to become mandatory by August 2012 in countries where the Directive 89/106/EEC has been implemented. As soon as the European construction product regulation (CPR) will be in force in July 2013, all missing EU countries will be covered.



CE marking and new “ISOVER TECH” product range.

With the new CE marking for technical insulation products, ISOVER uses the opportunity of harmonised European test standards to harmonise its European industry product range, offering high quality and technical advanced products under one umbrella „ISOVER TECH“.

ISOVER started to CE mark all European technical insulation products(*) by using accredited and independent institutes and will finalise this process by the end of 2012. „ISOVER TECH“ stands for all of the high quality and technical advanced products manufactured, tested and certified for industry insulation applications in Europe.

The ISOVER TECH product declarations will meet all requirements according to EN 14303 such as dimensional tolerances and stability, thermal conductivities over the full product service temperature range, fire reaction class but also any characteristics relevant for the industry use such as maximum service temperature, water absorption, acoustics and chemical behaviour.

Together with a new performance based naming structure, ISOVER TECH will become the new reference for thermal, acoustic and fire insulation in industry and guide the user to choose the right product with the right properties for each application.

(*): as an exception, loose wool for industrial applications will not be CE marked as out of scope of EN 14303. But its reaction to fire will be expressed in Euroclasses.



ISOVER Material Range

ISOVER TECH industry insulation products satisfy a range of demanding requirements: from lightweight glasswool products for a range of applications on lower temperature systems operating up to 250-400°C, to the more dense stonewool products for applications where mechanical strength is needed at temperatures up to 700°C. And for applications requiring ultimate energy efficient performance from standard to high temperatures, at low weight, or where space is limited, there is the innovative ULTIMATE industrial range: U TECH.



ULTIMATE (U TECH)

The all-in-one solution to meet your demands.

-  • Excellent thermal insulation
-  • High service temperatures
-  • Thin solutions
-  • Unique light weight
-  • Easy and fast installation
-  • Effective acoustic protection
-  • Effective fire protection
-  • Cost effective solutions
-  • Transport and storage savings by high compression
-  • Active environmental protection



Glasswool (TECH)



Key strengths.
Perfectly combined by ISOVER

-  • Excellent thermal insulation at cryogenic to standard temperatures
-  • Maximum flexibility
-  • Unique light weight
-  • Easy and fast installation
-  • Effective acoustic protection
-  • Cost effective solutions
-  • Transport and storage savings by high compression
-  • Active environmental protection



Stonewool (TECH)

Ideal for strong mechanical requirements

-  • Standard thermal insulation
-  • High service temperatures
-  • Effective fire protection
-  • Cost effective solutions
-  • High mechanical strength
-  • Active environmental protection

ISOVER TECH – New Industry Range

One product group for improved energy efficiency in industry

ISOVER TECH stands for the new CE marked and harmonised European product range for industry insulation with guaranteed technical excellence and high performance.

An (r)evolution in industry insulation – with the TECH product range ISOVER moves away from the traditional specification method in industry of indicating weight only but focus on performance based values instead.

Consequently each product of the ISOVER TECH range will highlight energy efficiency and sustainability classification together with the operating temperature designation. Additional indication of product form, facings and special applications will make the choice and differentiation between products easier and help to choose the right material with the right properties.

The new European ISOVER TECH naming structure for industry products

Example: **U** **TECH** **Wired Mat** **MT** **6** **.0** **Alu1 X-X** **EX**

1
2
3
4
5
6
7
8

1 Material indication for ULTIMATE only:

quality mark for high performance in higher temperatures

2 TECH – ISOVER product group

indicating one product range especially designed for all industry applications

3 Product form

product supplied as: Wired Mats, Industry Rolls, Crimped Rolls, Lamella Mats, Pipe Sections, Industry Slabs, Loose Wool

4 Operating temperature range

indicating use

TECH for standard temperatures up to 400 °C

TECH MT for medium-high temperatures up to 400-680°C

TECH HT for high temperatures ≥ 700°C

5 Energy efficiency class (see page 7)

indicating thermal performance of the product at different temperatures

6 Product version (see page 7)

indicating different characteristics of products within same energy efficiency class

7 Facing type

indicating product with additional facing

Alu1, Alu2 alu-foil facing, product classified non-combustible A1, A2-s1,d0

V1, V2 veil/tissue facing of neutral or black colour

X, X-X Wired Mat stitched with stainless wire or Wired Mat stitched with stainless wire and stainless wire mesh

8 Special applications

QN indicating special quality for nuclear applications

- TECH Loose Wool QN

- TECH Telisol QN

EX indicating special quality for explosion risk areas e.g. handling of liquid oxygene and requiring insulation with less than 0.5% total organic content.

- TECH Loose Wool EX

- (U) TECH Wired Mats EX



ISOVER TECH – The Right Solution for any Temperature

Whatever your requirement – thermal insulation, acoustic insulation, fire performance, compressive strength, vibration resistance, high temperature operation, low temperature operation ... ISOVER mineral wool is the right solution.

- 200 °C

250 °C

400 °C

680 °C

± 700 °C

CRYOLENE = cryogenic temperatures

TECH = standard temperatures up to 400°C

TECH MT = medium-high temperatures up to 680 °C

TECH HT

= high temperatures ≥ 700°C

ISOVER TECH product range – Glasswool

CRYOLENE 681	TECH Rolls 1.0 / 2.0	TECH Loose Wool / QN
		TECH Telisol QN
CRYOLENE 682	TECH Crimped Roll 1.0	TECH Crimped Roll 2.0
CRYOLENE 684		TECH Lamella Mat 1.0
	TECH Slabs 2.0 / 3.0	TECH Pipe Sections 4.0

ISOVER TECH product range – Stonewool

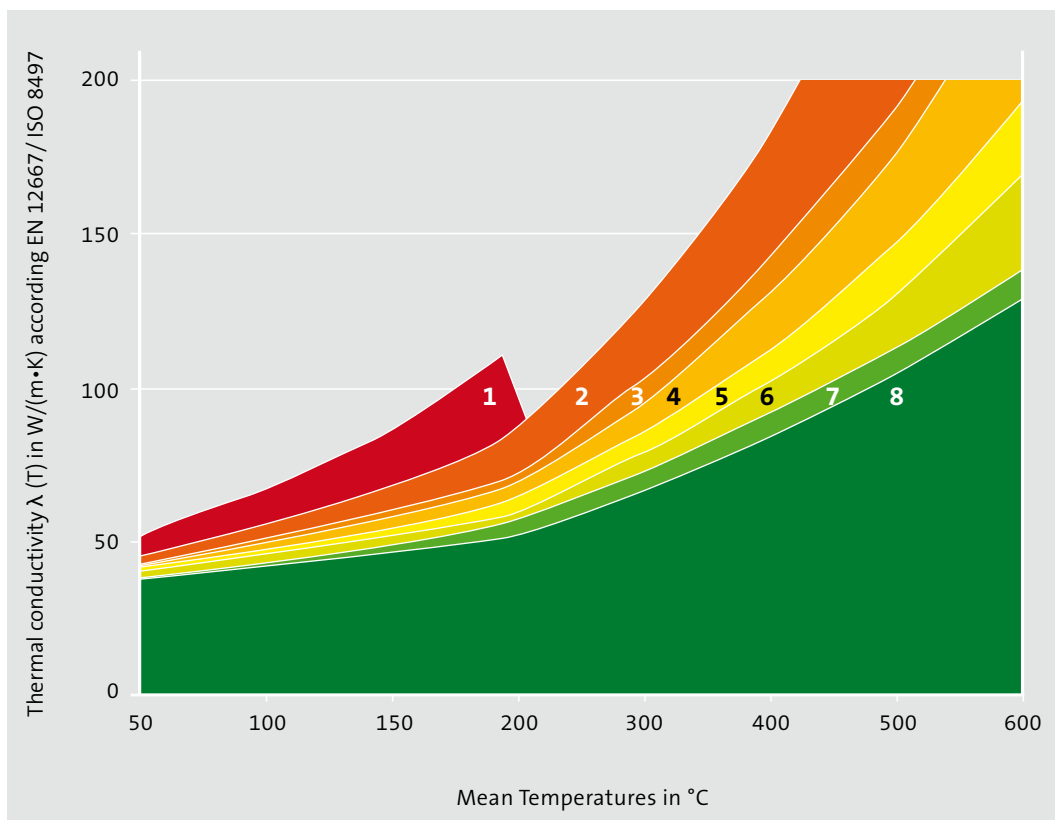
	TECH Lamella Mat MT 1.1	TECH Loose Wool HT / EX
	TECH Wired Mats MT 3.X - 5.X	TECH Wired Mat HT 5.2
	TECH Pipe Sections MT 4.1	
TECH Slab 2.1	TECH Slabs MT 3.0 - 6.0	TECH Slab HT 7.0

ISOVER TECH product range – ULTIMATE

U TECH Roll 2.0	U TECH Roll MT 4.0	U TECH Wired Mats MT 5.0 / 6.0	U TECH Wired Mat HT 8.0
		U TECH Pipe Section MT 6.0	
U TECH Slab 2.0	U TECH Slab MT 3.0	U TECH Slabs MT 5.0 / 6.0	U TECH Slab HT 8.0



ISOVER TECH – Energy Efficiency Performance Classes



Thermal Efficiency Indicator

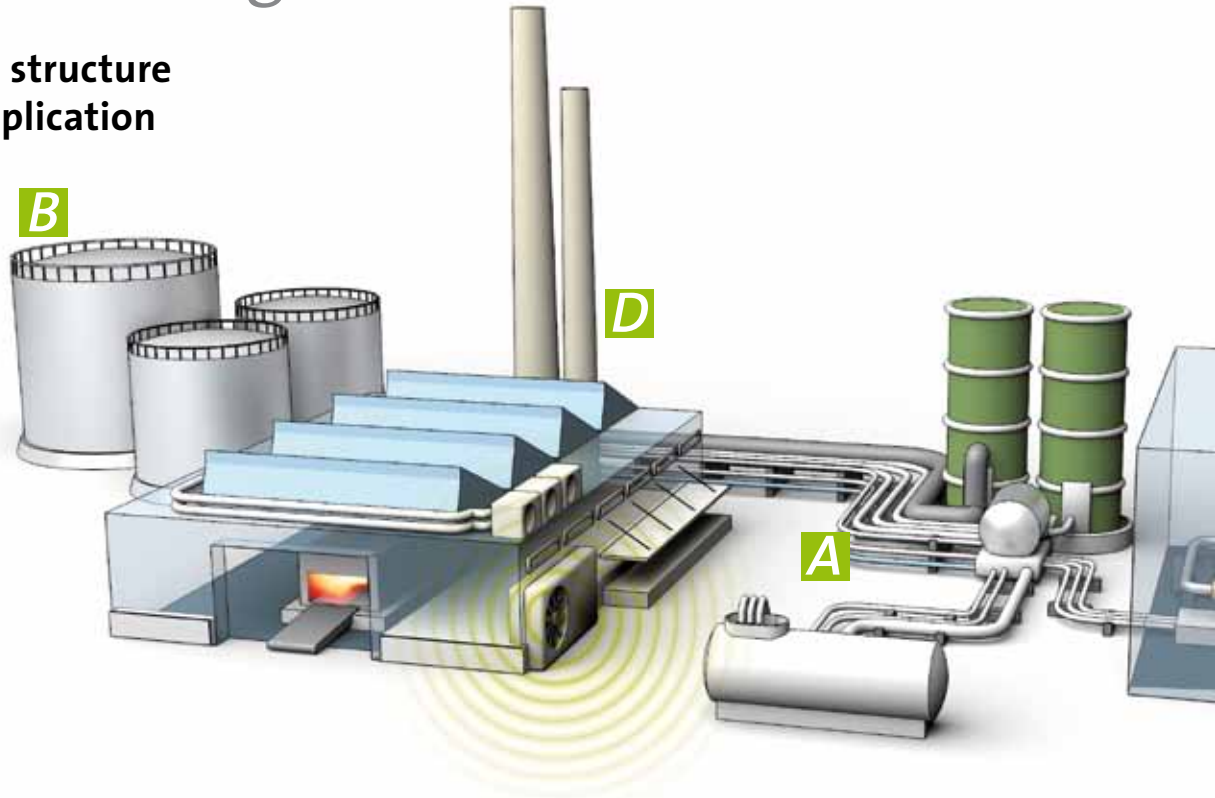
- 8. extra plus** → best for process temperatures up to 700 °C
- 7. extra** →
- 6. premium plus** → best for process temperatures up to 600 °C
- 5. premium** →
- 4. standard plus** → best for process temperatures up to 400 °C
- 3. standard** →
- 2. classic plus** → best for process temperatures up to 250 °C
- 1. classic** →





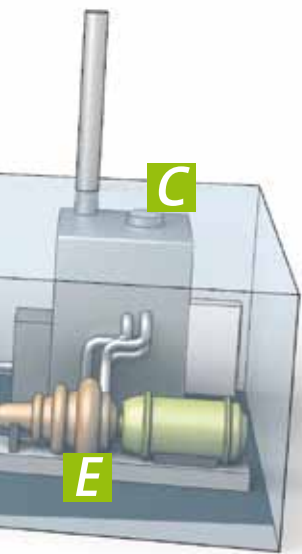
ISOVER TECH Range Overview

European naming structure for industry by application



Product Name	A Pipe work		B Tanks and Vessels			C Boilers		D Ducts/Chimneys		E Others	
	straight pipes	big diameter	LNG / cryogenic	storage tanks	vessels	boiler walls	boiler roofs	circular	rectangular	dead spaces/cavities	industry equipment
TECH Loose Wool										●	●
TECH HT Loose Wool										●	●
TECH Loose Wool QN										●	●
TECH Loose Wool EX										●	●
TECH Roll 1.0				●							
TECH Roll 2.0				●							
U Tech Roll 2.0				●							
U Tech Roll MT 4.0				●	●			●	●		
CRYOLENE 681			●								
CRYOLENE 682			●								
CRYOLENE 684			●								
TECH Crimped Roll 1.0		●		●							
TECH Crimped Roll 2.0		●		●	●			●	●		
TECH Lamella Mat 1.0		●		●	●			●	●		
TECH Lamella Mat MT 1.1		●		●	●			●	●		





A Pipe Work

- straight pipe work
- big diameter pipe work

B Tanks and Vessels

- LNG / cryogenic tanks
- storage tanks
- vessels

C Boilers

- boiler walls
- boiler roofs

D Ducts and Chimneys

- circular exhaust ducts and chimneys
- rectangular exhaust ducts

E Equipment and dead spaces

- dead spaces/cavities
- special industry equipment



Product Name	A Pipe work		B Tanks and Vessels			C Boilers		D Ducts/Chimneys		E Others	
	straight pipes	big diameter	LNG / cryogenic	storage tanks	vessels	boiler walls	boiler roofs	circular	rectangular	dead spaces/cavities	industry equipment
TECH Telisol QN		●									●
TECH Wired Mat MT 3.0		●			●			●	●		
TECH Wired Mat MT 4.0/4.1		●			●	●	●	●	●		
TECH Wired Mat MT 5.0/5.1		●			●	●	●	●	●		
TECH Wired Mat HT 5.2		●			●	●	●	●	●		
U TECH Wired Mat MT 5.0 X		●			●	●	●	●	●		●
U TECH Wired Mat MT 6.0 X		●			●	●	●	●	●		●
U TECH Wired Mat HT 8.0 X-X		●			●	●	●	●	●		●
TECH Pipe Section 4.0	●										
TECH Pipe Section MT 4.1	●							●			
U TECH Pipe Section MT 6.0	●							●			
U TECH Pipe Section Mat MT 6.0		●						●			
TECH Slab 2.0				●							
TECH Slab 3.0				●	●						
TECH Slab 2.1				●							
TECH Slab MT 2.2				●	●				●		
TECH Slab MT 3.0				●	●				●		
TECH Slab MT 4.0					●				●		
TECH Slab MT 5.0					●				●		
TECH Slab MT 6.0					●				●		
TECH Slab HT 7.0							●				
U TECH Slab 2.0				●							
U TECH Slab MT 3.0				●	●				●		
U TECH Slab MT 5.0				●	●				●		
U TECH Slab MT 6.0					●				●		
U TECH Slab HT 8.0					●				●		

ISOVER TECH Range Overview

European harmonised naming structure for industry by product group

Loose Wool

Product Name	Product description	Temperature range	Thermal efficiency class	Fire classification
TECH Loose Wool	glasswool low binder loose wool	up to 400°C	depending on compression	A1
TECH Loose Wool HT	stonewool low binder loose wool	up to 700°C	depending on compression	A1
TECH Loose Wool QN	glasswool nuclear quality loose wool	up to 400°C	depending on compression	A1
TECH Loose Wool EX	stonewool loose wool with LOI <0,5%	up to 700°C	depending on compression	A1

Industry Rolls

Product Name	Product description	Temperature range	Thermal efficiency class	Fire classification	Weight index
TECH Roll 1.0	glasswool roll	up to 150°C	classic	A1	ultra-light
TECH Roll 2.0	glasswool roll	up to 250°C	classic plus	A1	light
U TECH Roll 2.0	ULTIMATE roll	up to 300°C	classic plus	A1	light
U TECH Roll MT 4.0	ULTIMATE roll	up to 460°C	standard plus	A1	medium-light
CRYOLENE 681	glasswool resilient roll	cryogenic	see datasheet	A2 s1 d0	ultra-light
CRYOLENE 682	glasswool resilient roll	cryogenic	see datasheet	A2 s1 d0	ultra-light
CRYOLENE 684	glasswool resilient roll	cryogenic	see datasheet	A2 s1 d0	light

Crimped Rolls

Product Name	Product description	Temperature range	Thermal efficiency class	Fire classification	Weight index
TECH Crimped Roll 1.0	glasswool pressure resistant roll	up to 250°C	classic	A2 s1 d0	light
TECH Crimped Roll 2.0	glasswool pressure resistant roll	up to 400°C	classic plus	A2 s1 d0	medium-light

Lamella Mats

Product Name	Product description	Temperature range	Thermal efficiency class	Fire classification	Weight index
TECH Lamella Mat 1.0	glasswool compressive-resistant alu-foil faced lamella mat	up to 400°C	classic	A2 s1 d0	medium
TECH Lamella Mat MT 1.1	glasswool compressive-resistant alu-foil faced lamella mat	up to 620°C	classic	A2 s1 d0	medium

Wired Mats

Product Name	Product description	Temperature range	Thermal efficiency class	Fire classification	Weight index
TECH Telisol QN	glasswool nuclear quality wired mat	up to 400°C	see datasheet	A1	medium-high
TECH Wired Mat MT 3.0	stonewool wired mat	up to 550°C	standard	A1	medium-high
TECH Wired Mat MT 4.0/4.1	stonewool wired mat	up to 640°C	standard plus	A1	standard-high
TECH Wired Mat MT 5.0/5.1	stonewool wired mat	up to 660°C	premium	A1	high
TECH Wired Mat HT 5.2	stonewool wired mat	up to 700°C	premium	A1	heavy
U TECH Wired Mat MT 5.0 X	ULTIMATE wired mat	up to 540°C	premium	A1	medium
U TECH Wired Mat MT 6.0 X	ULTIMATE wired mat	up to 620°C	premium plus	A1	medium-high
U TECH Wired Mat HT 8.0 X-X	ULTIMATE wired mat	up to 720°C	extra plus	A1	heavy

Pipe Sections

Product Name	Product description	Temperature range	Thermal efficiency class	Fire classification	Weight index
TECH Pipe Section 4.0	glasswool pipe section	up to 400°C	standard plus	A1	medium-high to standard-high
TECH Pipe Section MT 4.1	stonewool pipe section	up to 620°C	standard plus	A1	high to heavy
U TECH Pipe Section MT 6.0	ULTIMATE pipe section	up to 660°C	premium plus	A1	medium-high to standard-high
U TECH Pipe Section Mat MT 6.0	ULTIMATE V-grooved pipe section mat	up to 660°C	premium plus	A1	medium-high

Industry Slabs

Product Name	Product description	Temperature range	Thermal efficiency class	Fire classification	Weight index
TECH Slab 2.0	glasswool thermo-acoustic slab	up to 250°C	classic plus	A1	light
TECH Slab 3.0	glasswool thermo-acoustic slab	up to 300°C	standard	A1	medium-light
TECH Slab 2.1	stonewool tank-wall slab	up to 400°C	classic plus	A1	medium-light
TECH Slab MT 2.2	stonewool slab	up to 600°C	classic plus	A1	medium-high
TECH Slab MT 3.0	stonewool slab	up to 620°C	standard	A1	standard-high
TECH Slab MT 4.0	stonewool slab	up to 660°C	standard plus	A1	high
TECH Slab MT 5.0	stonewool slab	up to 680°C	premium	A1	high
TECH Slab MT 6.0	stonewool slab	up to 680°C	premium plus	A1	heavy
TECH Slab HT 7.0	stonewool roof slab	up to 700°C	extra	A1	ultra-heavy
U TECH Slab 2.0	ULTIMATE thermo-acoustic slab	up to 300°C	classic plus	A1	light
U TECH Slab MT 3.0	ULTIMATE thermo-acoustic slab	up to 440°C	standard	A1	medium-light
U TECH Slab MT 5.0	ULTIMATE slab	up to 600°C	premium	A1	medium
U TECH Slab MT 6.0	ULTIMATE slab	up to 640°C	premium plus	A1	medium-high
U TECH Slab HT 8.0	ULTIMATE slab	up to 660°C	extra plus	A1	high

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**Contact details: For further information and contact details, please visit our website at:
www.isover-technical-insulation.com**

Saint-Gobain Insulation
"Les Miroirs"
92096 La Défense Cedex
France
www.ISOVER.com

