Manufacturing and Distribution of Insulation
KONET

KONET

Product Catalogue

Reflective Insulation · Waterproofing Protection · Insulation Wallpaper

KONET — Specialist manufacturer of insulation and protection materials

Since 1997 · Made in Korea

COMPANY

About KONET

01

Built on Fundamentals

We focus on what insulation is fundamentally meant to do and build every product properly from the ground up. We put performance before hype, and standards before trends.

02

Proven Technology

Backed by a long supply record and our own patented technologies, we deliver performance and reliability in equal measure.

03

Zero Defect Commitment

Through continuous product QC and monitoring of every production stage, we aim for zero defects. Strict control standards that tolerate no deviation drive us toward near-perfect quality.

04

Sustainable Partnership

We seek long-term partnerships, not one-off deliveries. With responsible quality management and sustainable technology, we grow the value of every building together with our partners.

CEO Message

MESSAGE FROM THE CEO

Since its founding in 1997, KONET has grown steadily in the field of building insulation, starting with waterproofing protection materials. For more than two decades, guided by our belief in “protecting building quality where no one can see it,” we have provided solutions optimised for construction sites, built on 16 patents and proven technology.

Going beyond manufacturing alone, we have spared neither time nor cost in meeting the challenges of our era: saving energy and building a renewable environment. Our highest value is to fulfil the essential role of insulation honestly and to be a company that makes a positive difference to our industry and society.

Through high-quality products such as reflective insulation and insulation wallpaper, we will keep making insulation more affordable and accessible, delivering “insulation for everyone.” Grounded in innovation, trust and social responsibility, we promise to remain a company that builds a solid future for construction.

Ji Hun Chae / CEO, KONET

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PRODUCT RANGE AT A GLANCE

Reflective Insulation	Waterproofing Protection	Insulation Wallpaper
Smart Q	Protection Board	Silk Wallpaper
Smart Standard	PP13T	Smart Wallpaper
Smart #	Smart Root Barrier	Smart Change
		Foam Block
		Base Liner

PRODUCT OVERVIEW

01 Reflective Insulation

Keep the heat out. Keep your space comfortable.

Reflective insulation made by laminating aluminium foil onto polyethylene (PE) foam. The aluminium face reflects radiant heat, while the foam and its trapped air further reduce heat transfer by conduction and convection. Installed in walls and floors, it also helps cut noise.



APPLICATIONS

· Homes — walls, ceilings, windows, floors, balconies, boiler rooms, laundry rooms

· Floor sound insulation — reduces impact noise between floors

· Leisure — campervans, caravans, camping and vehicle applications

· Other — greenhouses, warehouse ceilings, frost protection for pipes

Product Range

Available in three types, so thickness and build-up can be matched to site conditions. All products are 1 m wide.



Smart Q

SMARTQ-101

Structure Layer Structure	Aluminium foil film, non-crosslinked PE, PET release liner
Thickness	6,10,13,20,30,40mm
Size	1,000mm × 50,25,25,20,10,10m
Use	Interior walls, camping, vehicles, pipe insulation



Smart Standard

SMARTQPLS-102

Structure Layer Structure	Aluminium foil film, polyester spunbond non-woven, crosslinked PE, non-crosslinked PE, PET release liner
Thickness	6,10,13,20mm
Size	1,000mm × 50,25,25,20m
Use	Interior walls, floor sound insulation, pipe insulation



Smart

SMART#-103

Structure Layer Structure	Quasi-noncombustible glass-fibre aluminium foil film, polyester spunbond non-woven, crosslinked PE
Thickness	100mm
Size	1,000mm × 2m
Use	Exterior walls, quasi-noncombustible insulation

Features

01

Reflects Radiant Heat

The aluminium face reflects radiant heat, helping to reduce heating and cooling energy loss.

02

Fits Tight Spaces

Ideal for balconies, boiler rooms and warehouse ceilings warehouse ceilings where thick insulation will not fit.

03

Easy to Install

Cut with a knife and fix with staples or tape. Easy handling means fewer gaps.

04

Reduces Noise

In walls and floors, it helps reduce everyday noise and impact noise between floors.

Test Reports

KCL



TEST REPORT · KCL
SMARTLON 6T
U-value
0.66 W/m²·K
KS F 2277 · Oct 2013
No. CT13-75166



TEST REPORT · KCL
SMARTLON 10T
U-value
0.58 W/m²·K
KS F 2277 · Oct 2013
No. CT13-75165



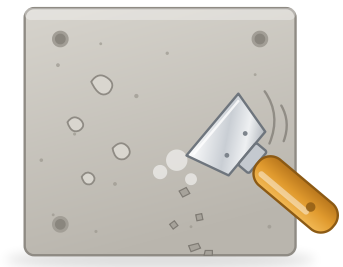
TEST REPORT · KCL
SMARTLON 30T
U-value
0.34 W/m²·K
KS F 2277 · Mar 2015
No. CT14-114983



TEST REPORT · KCL
SMARTLON 40T
U-value
0.26 W/m²·K
KS F 2277 · Jan 2016
No. CT13-124523_M1

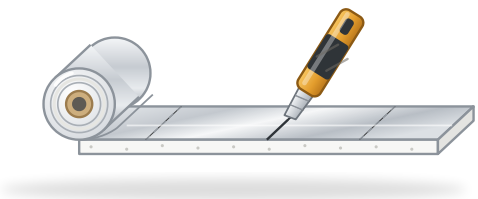
* U-values are for the complete test assembly, including the concrete wall and air layer (KS F 2277). Original reports are available on request.

Installation



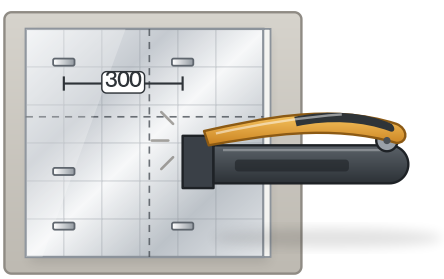
STEP 01 Prepare the Surface

Remove dust and protrusions to leave a clean, level surface.



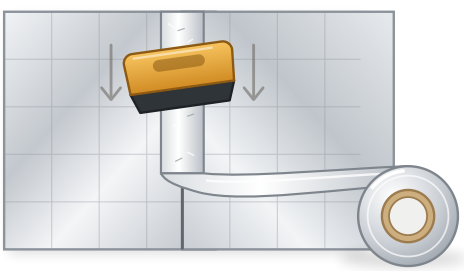
STEP 02 Cut to Size

Unroll the material, check the dimensions and cut to size with a knife.



STEP 03 Fix in Place

Fix with staples or double-sided tape at 300 mm intervals.



STEP 04 Seal the Joints

Butt or overlap the joints, then seal them with aluminium tape.

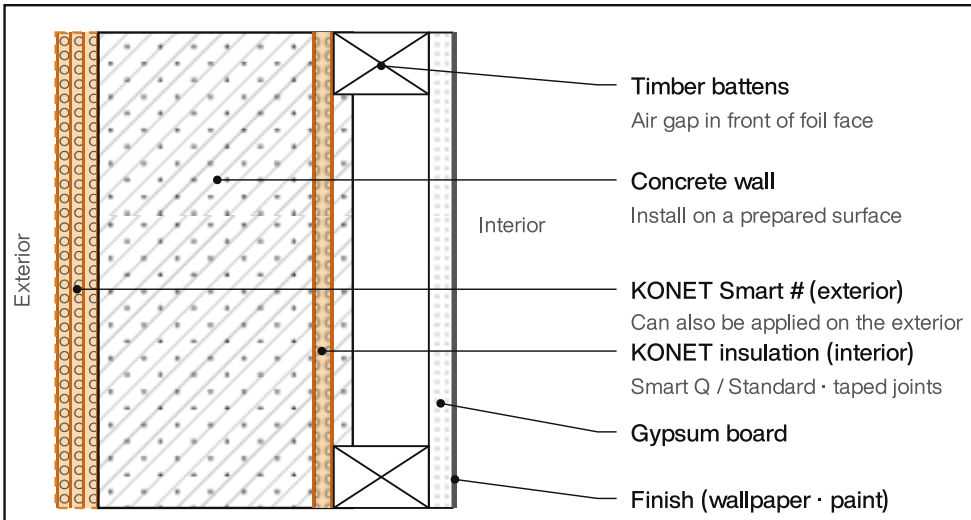
INSTALLATION NOTES

· An air gap in front of the foil face increases radiant heat reflection.

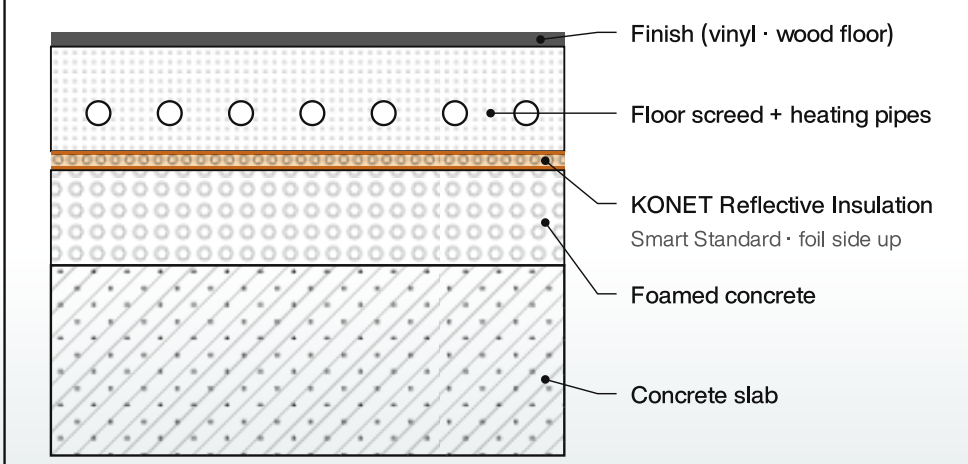
· The better the joints are sealed, the less heat escapes through gaps — and the better the insulation performs.

Installation Details

KONET reflective insulation



DETAIL 01-A	Wall insulation · plan section	SCALE NONE	UNIT mm



DETAIL 01-B	Heated floor · section	SCALE NONE	UNIT mm

* Typical details for reference only. Layers and dimensions may vary with site conditions.

02 Waterproofing Protection

Waterproofing needs protection, too.

A protection board combining PE foam with tough crosswoven polypropylene (PP) fabric. The thick foam layer absorbs impact, while the crosswoven PP fabric resists tearing and puncture. Its closed-cell structure does not absorb water, and it simply rolls out on site.



APPLICATIONS

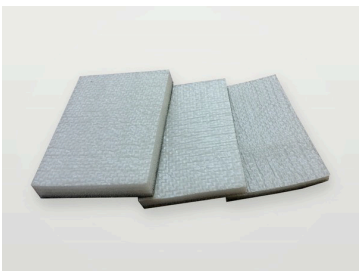
· Roofs — beneath concrete topping, green roofs, roof terraces

· Below ground — basement walls before backfill, underground car parks

· Other — podium decks, beneath landscaping

Product Range

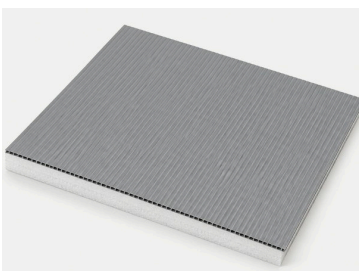
Available in three types to suit different applications and site conditions.



Protection Board

PRT-100

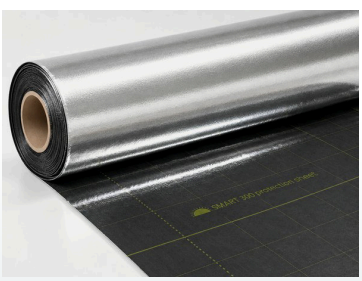
Build-up	Woven PP, non-crosslinked PE, PET release liner
Thickness	5,10,20,30mm
Size	1,000mm × 50,50,25,25m
Use	Basements, tunnels, pre-backfill works



PP13T

PRT-PP13T

Build-up	PP 3 mm, non-crosslinked PE 10 mm
Thickness	13mm
Size	1,000mm × 2m
Use	LH (Korea Land & Housing Corporation) projects



Smart Root Barrier

PRT-300

Build-up	Recycled PET, PP non-woven, metallised PE
Thickness	2mm
Size	1,000mm × 20m
Use	Landscaping, waterproofing works, roof waterproofing

Features

01

Absorbs Impact

The thick foam layer absorbs impact from stones and equipment, protecting the membrane.

02

Resists Tearing & Puncture

Crosswoven PP fabric resists tearing and puncture.

03

Non-absorbent

The closed-cell structure does not absorb water, so it keeps its shape below ground and on roofs.

04

Fast to Install

Supplied in rolls that simply roll out, covering large areas quickly.

Test Reports

KCL · KATI



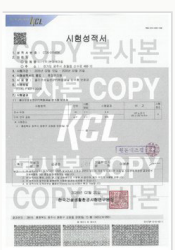
TEST REPORT · KCL

Protection Board

PRT-100 · PE foam board

Tensile	Tear
1,045 kPa	1.52 kN/m

No. CT25-108035K
Jan 2026



TEST REPORT · KCL

PP13T

PRT-PP13T · PP 3 mm layer

Thickness	Mass
3.4 mm	916 g/m²

No. CT26-016460K
Feb 2026



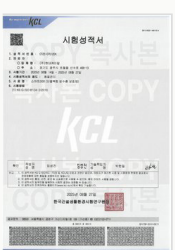
TEST REPORT · KATI

Smart Root Barrier

PRT-300 · Physical

Tensile	Impact
57 N/mm	Class 2

No. KATI-TR-2507-22-01
Sep 2025



TEST REPORT · KCL

Smart Root Barrier

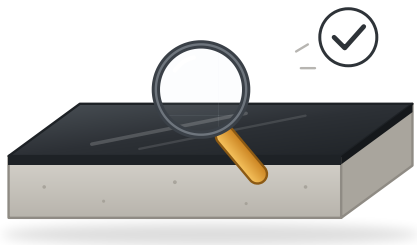
PRT-300 · Heavy metals (8)

Pb·Cd·Hg·Cr	As·Sb·Ba·Se
N.D.	N.D.

No. CT25-070120K
Aug 2025

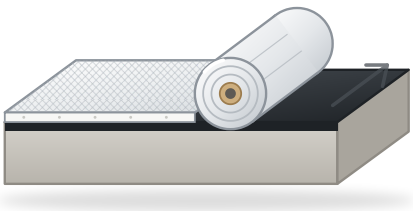
* Original reports are available on request. Results apply only to the samples tested. N.D. = not detected.

Installation



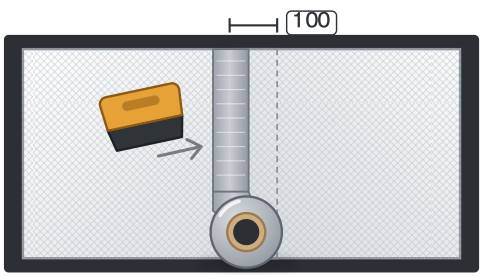
STEP 01 Check the Membrane

Make sure the waterproofing membrane is fully cured and dry.



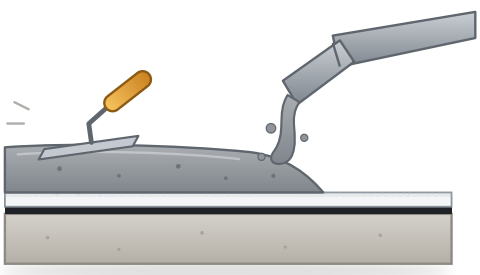
STEP 02 Roll Out

Roll out the board to cover the entire membrane.



STEP 03 Overlap Joints

Overlap joints by at least 100 mm and fix them with tape.



STEP 04 Cover & Backfill

Pour the concrete topping or backfill with soil.

INSTALLATION NOTES

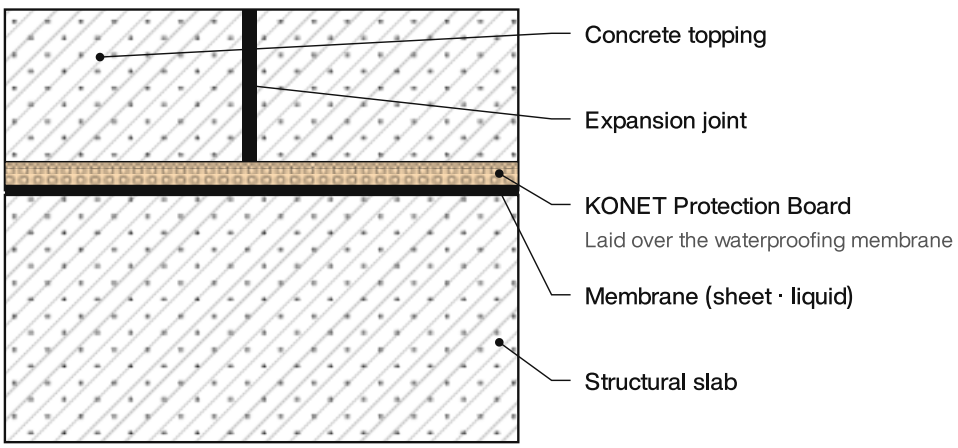
· Overlap joints by at least 100 mm and tape them firmly, with no lifting edges.

· Keep equipment and heavy loads off the board.

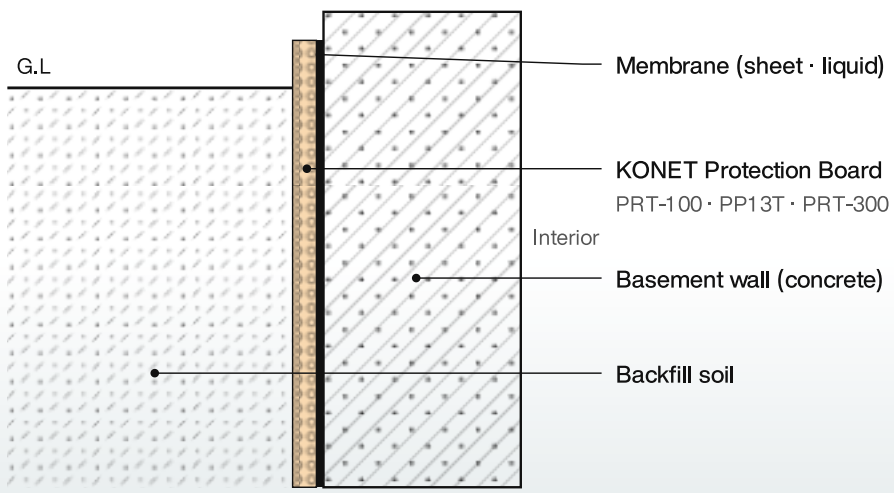
· Before pouring or backfilling, check that the board has not shifted and no joints have opened.

Installation Details

KONET waterproofing protection



DETAIL 02-A	Roof with topping · section	SCALE NONE	UNIT mm



DETAIL 02-B	Basement backfill · section	SCALE NONE	UNIT mm

* Typical details for reference only. Layers and dimensions may vary with site conditions.

03 Insulation Wallpaper

The easiest way to turn a cold, stained room into a warm, stylish space.

A wallpaper made by laminating aluminium foil onto PE foam (or KONET's proprietary insulating non-woven) and finishing it with OPP, CPP or LLD film. It separates the cold wall from indoor air to help reduce condensation, and the film surface resists moisture and wipes clean.



APPLICATIONS

· Homes — rooms on exterior walls, north-facing rooms, children's rooms, basements and attics

· Markets —rental refurbishment, DIY interiors and online retail

Product Range

Available in five types, differing in insulation core and surface film.



Silk Wallpaper

INSWAP-001

Structure Layer Structure	OPP/CPP/LLD film, crosslinked PE, aluminium foil, PET release liner
Thickness	5mm
Size	1,000mm × 20m
Use	Remodelling, sound-insulating wallcovering



Smart Wallpaper

SMT-001

Structure Layer Structure	OPP film, PP non-woven, aluminium foil film, PET release liner
Thickness	1mm
Size	1,000mm × 10, 20m
Use	Remodelling, interior refurbishment film



Smart Change

SMT-002

Structure Layer Structure	OPP/CPP/LLD film, crosslinked PE, aluminium foil, PET release liner
Thickness	2mm
Size	1,000mm × 20m
Use	Remodelling, interiors

Product Range



Foam Block

INSWAP-002

Structure Layer Structure	CPP/LLD film, crosslinked PE, aluminium foil, PET release liner
Thickness	5mm
Size	1,000mm × 20m
Use	Remodelling, interiors, sound insulation



Base Liner

INSWAP-003

Structure Layer Structure	LLD film, crosslinked PE, aluminium foil, PET release liner
Thickness	5mm
Size	1,000mm × 20m
Use	Levelling layer before wallpapering, insulation, sound insulation

Features

01

Reduces Condensation

Separates the cold wall from indoor air, helping to reduce condensation.

02

Resists Mould

Anti-mould, antibacterial materials make it hard for mould to grow.

03

Wipe-clean Surface

The film surface resists moisture, and marks wipe off easily.

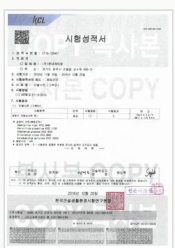
04

No Renovation Needed

Simply apply it over the existing wall, without major demolition work.o

Test Reports

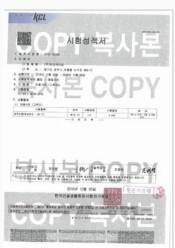
KCL · FITI



TEST REPORT · KCL
Insulation Sheet
Mold resistance · ASTM G21

Mold growth **Grade 0**
Period **4** wks

No. CT16-129487
Dec 2016



TEST REPORT · KCL
Insulation Sheet
Thermal cond. · KS L 9016

λ (20 °C)
0.040 W/m·K

No. CT16-132255
Dec 2016



TEST REPORT · FITI
SmartIon Insulation Sheet
Flame retardancy · KC std.

Result **Pass**
After-flame **0** s

No. M270-17-00124
Jan 2017



TEST REPORT · KCL
Insulation Sheet
Indoor air emission

TVOC **0.034** mg/m²h
HCHO **N.D.**

No. CT16-129486
Jan 2017

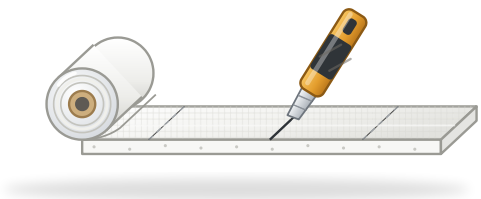
* Original reports are available on request. Results apply only to the samples tested. N.D. = not detected.

Installation



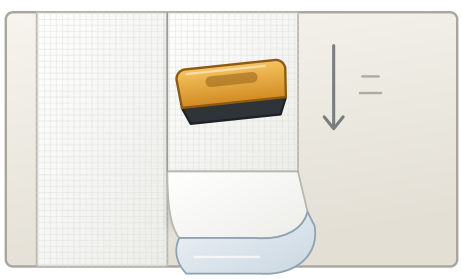
STEP 01 Clean the Wall

Wipe off dust and grease, remove any mould and let the wall dry completely.



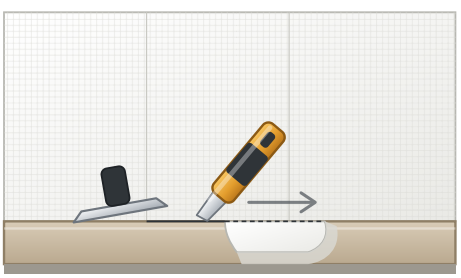
STEP 02 Cut to Size

Cut to the wall height plus a 50 mm allowance at top and bottom.



STEP 03 Apply

Peel back the liner little by little, apply from top to bottom and smooth out air with a spatula.



STEP 04 Trim

Neatly trim the excess at the ceiling and skirting with a knife.

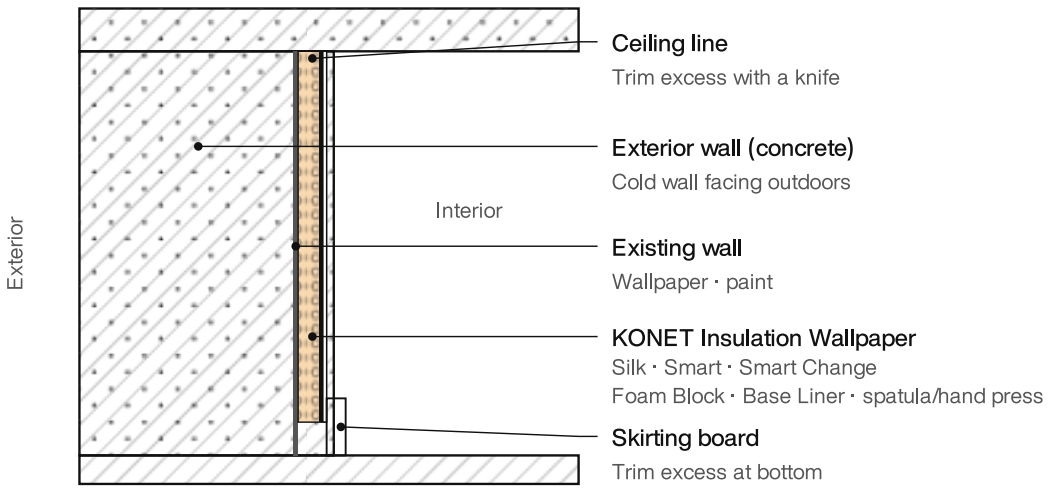
INSTALLATION NOTES

· Before starting, remove all mould and dust, and install only on a completely dry surface

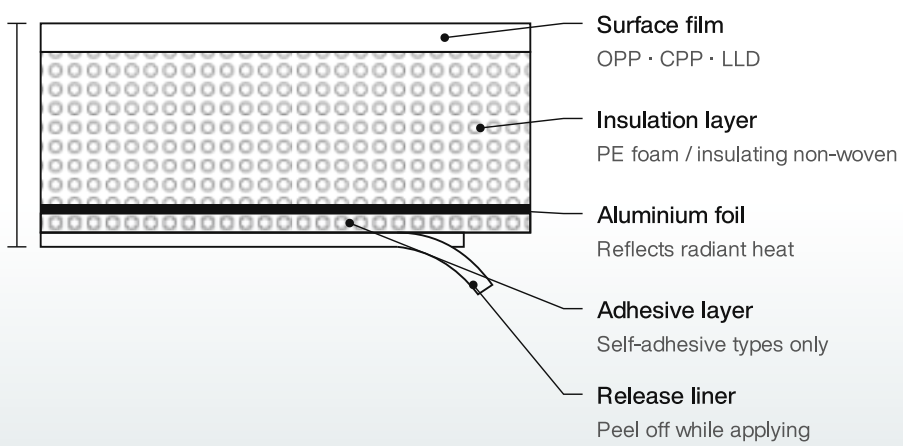
· Butt the edges tightly with no gaps so seams do not open or lift.

Installation Details

KONET insulation wallpaper



DETAIL 03-A	Exterior wall application · section	SCALE NONE	UNIT mm



DETAIL 03-B	Product layers · enlarged section	SCALE NONE	UNIT mm

* Typical details for reference only. Layers and thickness may vary by product.

Manufacturing and Distribution of Insulation

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Factory 3 · 95-31 Yongsu-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, Korea

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