

ecological
BUILDING SYSTEMS

Thermal Roof Solutions



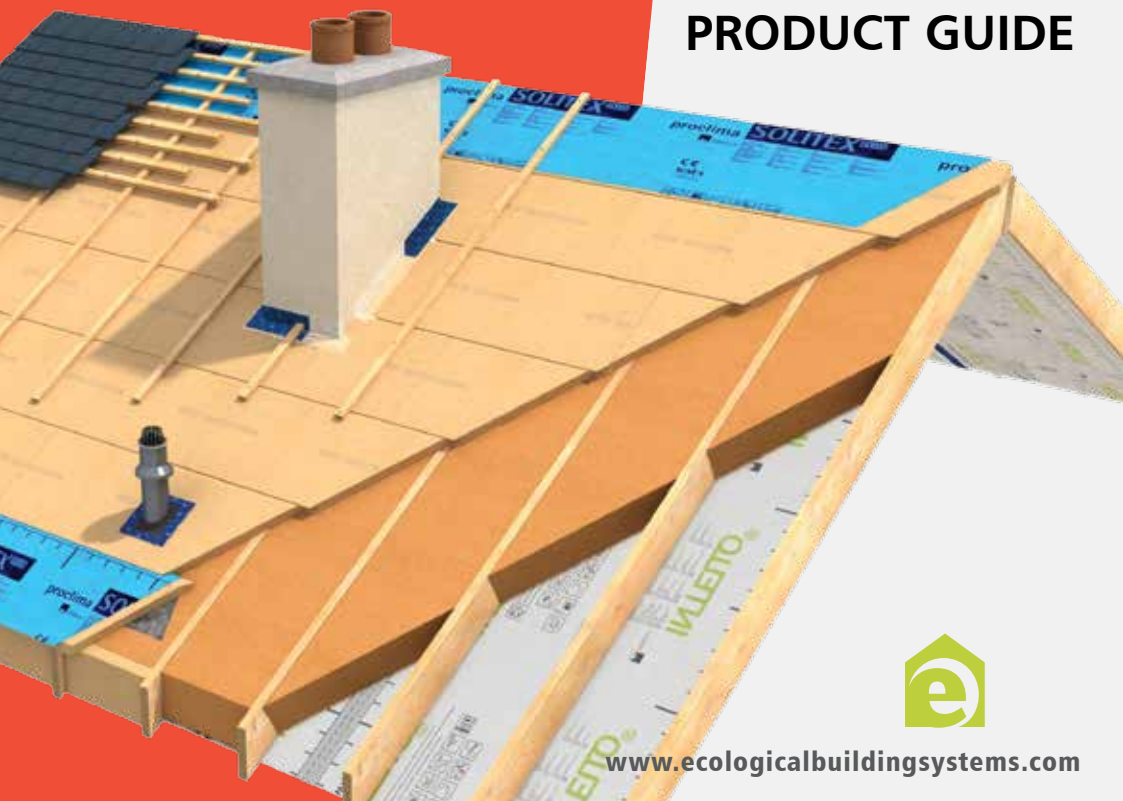
 **GUTEX**[®]
NATURALLY MADE FROM WOOD



Intelligent airtight
and windtight
building systems



PRODUCT GUIDE



www.ecologicalbuildingsystems.com



What is GUTEX?

GUTEX based in the black forest are a leading German manufacturer of woodfibre insulation with over 80 years' experience. GUTEX woodfibre boards are produced by using an innovative dry method, this is much less energy intensive than the conventional wet method and minimizes additions of binders and hydrophobic wax. The result is the ultimate natural insulation material – insulation with a wood content of 94-96% that has superb properties for interior and exterior applications.

Improved Comfort Levels

GUTEX woodfibre boards high density, combined with their high specific heat capacity, results in a material that heats up slowly and has outstanding thermal diffusivity. The boards can delay temperature rise by 10 or more hours. This thermal delay can help maintain a comfortable internal temperature on warmer days, and maintain comfortable temperatures at night. In contrast, low density materials such as foam, mineral wool or fibreglass heat up rapidly which may contribute to overheating of the living space. The ability of the insulation to buffer temperature fluctuations can be a critical component in ensuring comfort levels within the living space are optimised.

Ultratherm®



Thickness (mm)	50/60/80/100/120/140/160
Length x width (mm)	1780 x 600
Nominal thermal conductivity λ_D (W/mK)	0.042
Vapour diffusion factor (μ)	3
Compressive stress/ strength (kPa)	150
Short-term water absorption (kg/m ²)	1.0
Specific heat capacity (J/kgK)	2100
Fire reaction Euro Class as per DIN EN 13501-1	E

Multiplex Top®



Thickness (mm)	22/28/35
Length x width (mm)	2500 x 750
Nominal thermal conductivity λ_D (W/mK)	0.044
Vapour diffusion factor (μ)	3
Compressive stress/ strength (kPa)	200
Air flow resistivity (kPa·s/m ³)	100
Short-term water absorption (kg/m ²)	1.0
Specific heat capacity (J/kgK)	2100
Fire reaction Euro Class as per DIN EN 13501-1	E



Let Your Building Breathe

Compared to conventional foil faced impervious insulation, GUTEX wood fibre boards are extremely vapour permeable with a μ value of only 3. This ensures that not only will the insulation prevent moisture penetrating the building fabric in the first case, but unforeseen vapour/moisture which may penetrate the roof structure can dry out as rapidly as possible, rather than remain trapped within the building envelope.

Is a Membrane Required?

Generally, an additional protective breather membrane is not required over Multiplex Top® or Ultratherm®, however, where the pitch of the roof is less than 15 degrees an additional breather membrane such as pro clima SOLITEX PLUS should be applied.

Additional detailing

There are a few remaining details such as

valleys, outside corners, dormers, chimneys or windows that need to be additionally waterproofed with tape connections. This can be attained by applying pro clima TESCON PRIMER RP and TESCON VANA 150mm tape to make these connections waterproof and windtight.

Sealing a Valley

Butt joints of GUTEX woodfibre boards must be primed with pro clima TESCON RP PRIMER & sealed with TESCON VANA tape.



Ecological Building Systems

is at the forefront of sustainable building solutions with sole agency in Ireland and the UK for GUTEX wood fibreboards, one of the longest established manufacturers in Germany and pro clima the eminent and well established brand of Intelligent Airtight & Windtight building solutions. Ecological also supply a range of natural insulations for both refurbishment and new build.

Technical Sales Service and Back Up

Ecological Building Systems is pleased to provide technical advice on how to incorporate our products into different forms of constructions for new build and refurbishment projects.

- U Value Calculations and Dew Point Assessments.
- Free Fixing Calculation service provided.
- We offer a free technical helpline.
- CPDs and installation training.
- Copies of more in-depth relevant reports, studies and samples.
- Help and advice on meeting the requirements of Passivhaus & Building Regulations.
- Hygro-thermal modelling using WUFI.
- Airtightness and Windtightness construction details available on request.
- Airtight installation videos available on our website.
- On-site support, where possible.
- Bespoke Training Centre and Showroom.
- Free in house drawing review and consultation service.



Accessories



pro clima TESCON VANA
Multi-purpose flexible adhesive tape for windtight sealing



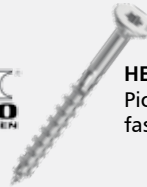
pro clima TESCON PRIMER RP
Priming coat suitable for internal and external use. Used to stabilise surfaces



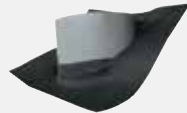
pro clima SOLITEX PLUS
Vapour permeable windtight roof tile underlay



GUTEX Joint Filling Compound



HECO Screw
Pioneering screw and fastening technology



pro clima Reflex
Airtightness grommet for pipe work

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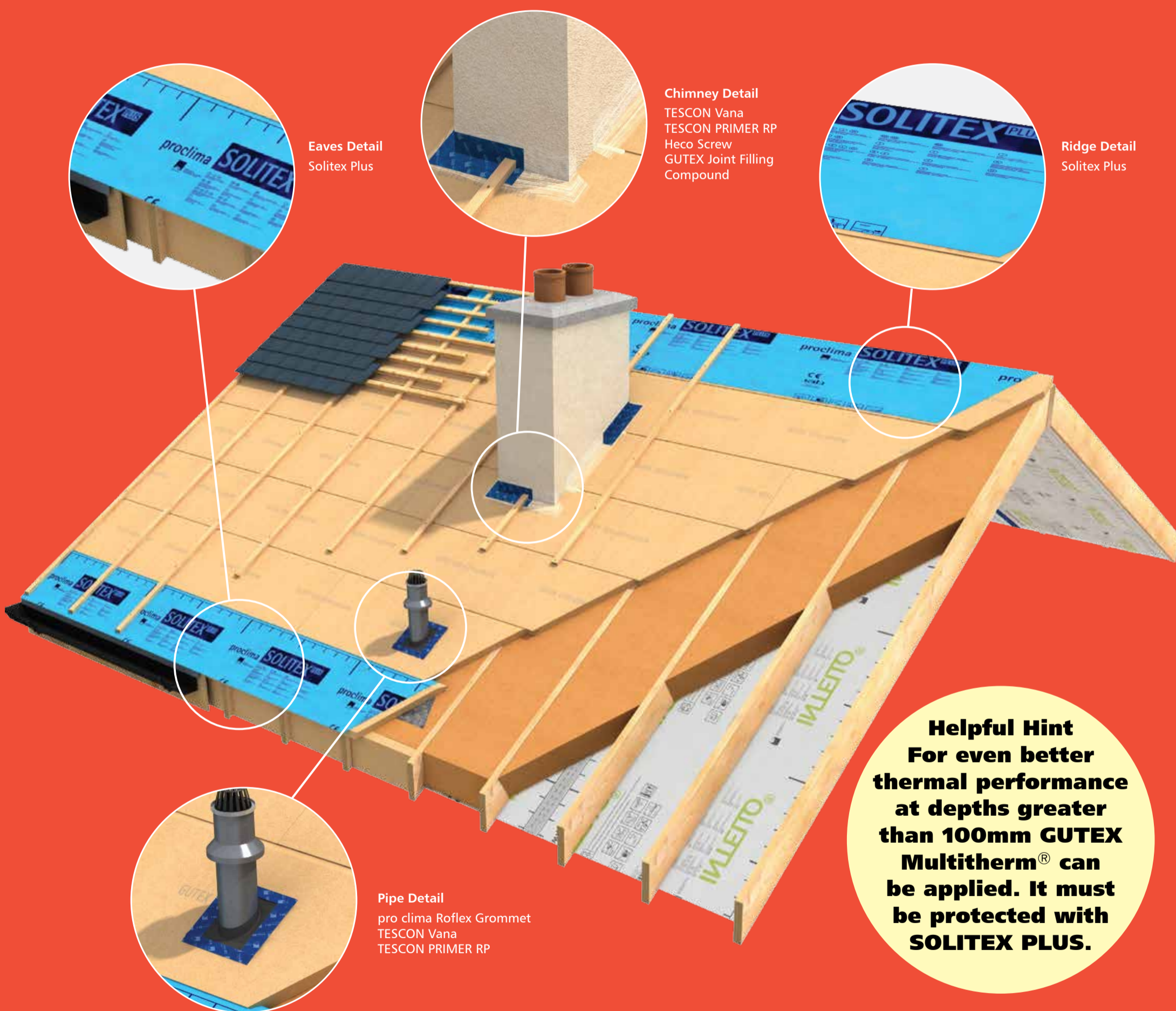
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Weathertight & Insulate Your Roof

Benefits of GUTEX Insulation Board for Roofs

GUTEX manufacture 2 thermal insulation systems which may be applied on the outside of pitched roofs, Multiplex Top (22mm-35mm thick) and Ultratherm (50mm-160mm thick). The tongue and groove (T&G) edges ensure a fast, accurate installation and also ensures that the boards are waterproof

and wind-tight from the outset. The building is now protected from the elements during the interior construction phase. GUTEX warm roof insulation systems can be left exposed for up to 12 weeks. The final cladding/roofing should be added within three months.



Eaves Detail
Solitex Plus

Chimney Detail
TESCON Vana
TESCON PRIMER RP
Heco Screw
GUTEX Joint Filling
Compound

Ridge Detail
Solitex Plus

Pipe Detail
pro clima Reflex Grommet
TESCON Vana
TESCON PRIMER RP

Helpful Hint
For even better thermal performance at depths greater than 100mm GUTEX Multitherm® can be applied. It must be protected with SOLITEX PLUS.

- Suitable as temporary roof covering (max. 3 months)
- Ideal for upgrading the thermal insulation of existing structures
- Reduces thermal bridging
- Helps prevent overheating
- Significantly improves acoustic insulation
- Regulates humidity

- Makes structures wind-tight
- Guaranteed by Germany's Association of Roofers
- Wood is a sustainable, recyclable natural resource
- Biologically safe (natureplus® certified)
- All GUTEX products carry the CE mark and Environmental Product Declarations