

Trimoterm.Power



Money saving  
and energy efficient  
panel system

## NEW ENERGY EFFICIENT AND AIRTIGHT SOLUTION

### ENERGY EFFICIENCY AND SAVINGS

The highest levels of energy efficiency and cost-effectiveness are the most important requirements demanded by clients today. To meet this growing need, Trimo has developed an extremely energy efficient and airtight panel system that is economic in use, facilitating low energy consumption, which brings substantial energy and money savings.

### CLASS-LEADING SYSTEM

New Trimoterm energy efficient and airtight solution consists of new Trimoterm Power T panels with extreme thermal performance, a brand new detail concept, accessories and precise assembly instructions. Fire resistant panel system assures maximum fire safety.

Trimoterm Power T is manufactured to the highest production standards and engineering tolerances to deliver class-leading airtightness; a factor of 10 greater than that of a typical passive building.



## SUSTAINABLE SOLUTION

New Trimoterm solution offers a number of advantages, not least a reduction in CO<sub>2</sub> emissions through reduced heating costs and energy use of the building. Additionally indoor air quality will be significantly improved through more stable temperatures and draft elimination for a more comfortable working environment. LEED, BREAM and other sustainable credits will also be higher for sustainable developments adding real value to the property.

## CONTROLLED ENVIRONMENT

Highly specialised technologies and processes often demand controlled environments or at the very least a specific internal building climates. The new Trimoterm panel system with its extreme high airtightness is ideal solution for the client with specific needs relating to high air cleanliness, low and controlled humidity, safe and controlled manufacturing processes, or the preservation of goods and materials.



### Benefits:

- **Energy savings** through reduced heat loss and lower running costs
- **Cleanliness and controlled environment:**
  - stable indoor climate and air quality
  - manufacturing process security
  - goods & materials preservation
- **Special requirements fulfillment** (e.g. higher pressure difference)
- **Maximum fire safety**, incl. for buildings with demand for oxygen reduction systems
- **Improved sustainable criteria** for achieving environmental certificates (LEED, BREEAM, DGNB...).



Energy efficiency



Air tightness



Fire Safety



Emission Reduction

## ENERGY EFFICIENCY LEVELS

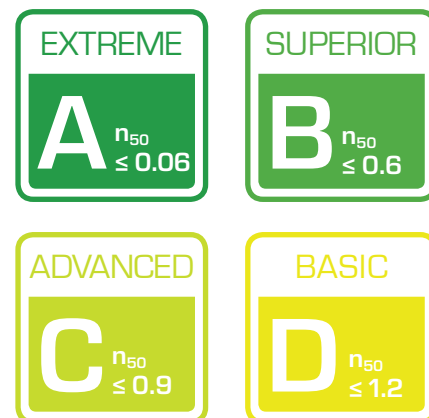


Trimoterm energy efficient and airtight solution can meet all the wide and diverse energy efficiency needs of clients from the most basic needs through the more demanding and complex requirements.



### TRIMOTERM ENERGY EFFICIENCY LEVELS

Trimoterm expert team has developed four predesigned levels of energy efficient solutions, but all specific individual airtightness requirements down to  $n_{50} = 0.06 \text{ h}^{-1}$  can be met.



### Trimoterm energy efficient solutions consist of:

- Trimoterm Power panels
- High performance details
- Assembly instructions and accessories
- Installation supervision

## ENERGY AND MONEY SAVINGS

New Trimoterm energy efficient solutions can provide considerable energy, money savings and CO<sub>2</sub> emissions reduction. Depending on local building regulation regarding air leakage and thermal insulation the savings with Trimoterm energy efficient solutions can be from 49 to 80 %.

### Trimoterm Power T solution compared to the Building Regulation ( $n_{50} = 4$ )

	Air leakage	Energy savings
<b>EXTREME</b>	$n_{50} = 0.06$	up to <b>80 %</b>
<b>SUPERIOR</b>	$n_{50} = 0.6$	up to <b>70 %</b>
<b>ADVANCED</b>	$n_{50} = 0.9$	up to <b>65 %</b>
<b>BASIC</b>	$n_{50} = 1.2$	up to <b>59 %</b>
<b>Building Regulation</b>	$n_{50} = 4$	

### Trimoterm Power T solution compared to the Building Regulation ( $n_{50} = 3$ )

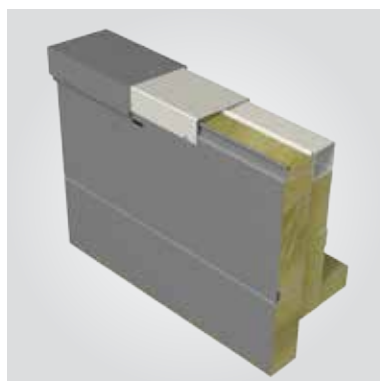
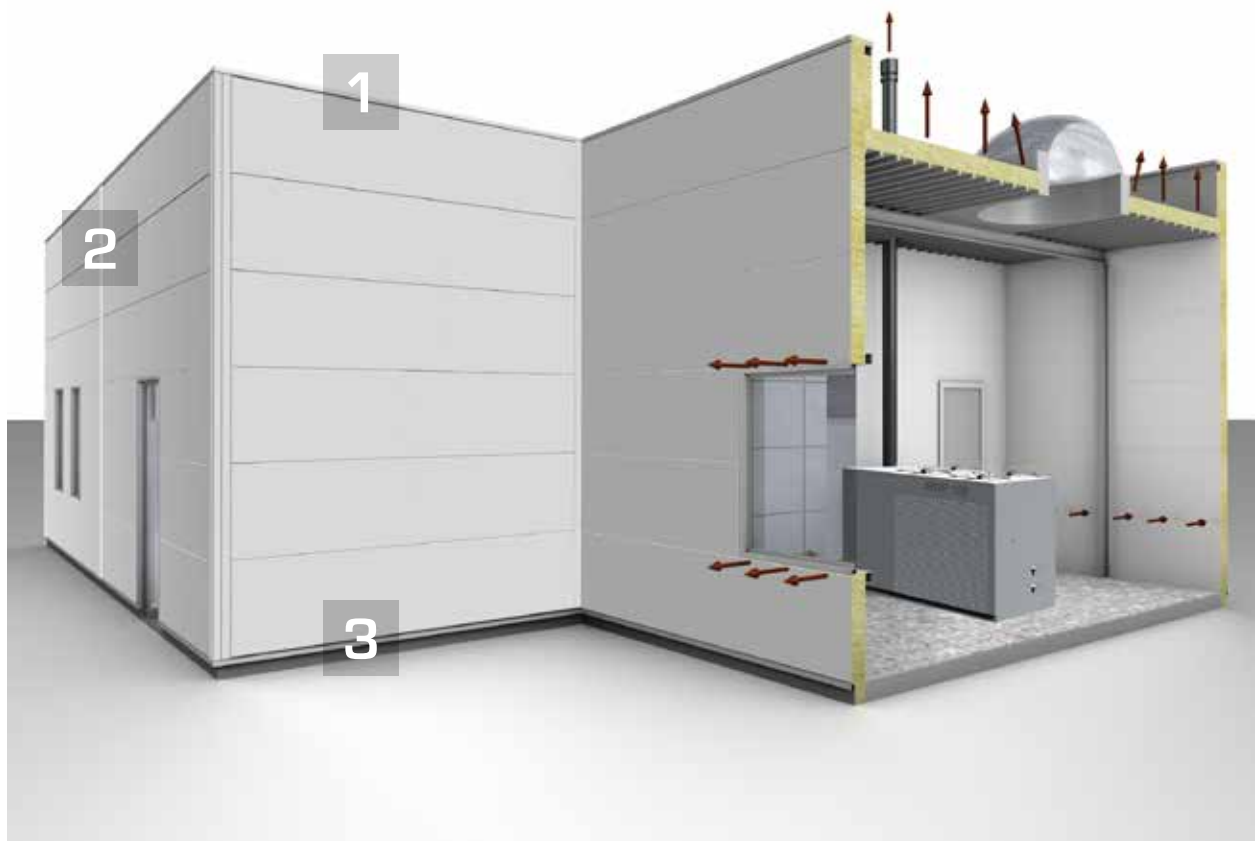
	Air leakage	Energy savings
<b>EXTREME</b>	$n_{50} = 0.06$	up to <b>76 %</b>
<b>SUPERIOR</b>	$n_{50} = 0.6$	up to <b>63 %</b>
<b>ADVANCED</b>	$n_{50} = 0.9$	up to <b>56 %</b>
<b>BASIC</b>	$n_{50} = 1.2$	up to <b>49 %</b>
<b>Building Regulation</b>	$n_{50} = 3$	



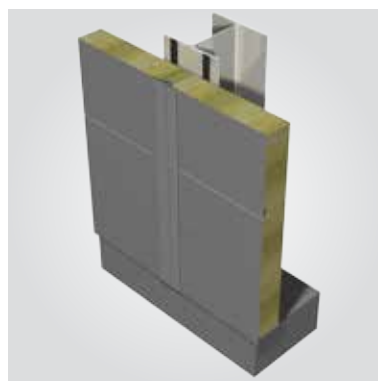
\* Informative energy savings calculation is based on a typical building with 10.000 m<sup>2</sup> floor area, Trimoterm Power T energy efficient panel solution with U value 0.15 W/m<sup>2</sup>K and South German climate. Calculation assumes air exchange rates 3 and 4 respectively and U values 0.20 W/m<sup>2</sup>K (roof) and 0.26 W/m<sup>2</sup>K (wall), according to European Building Regulations.

## PREVENTION OF AIR AND HEAT LOSSES

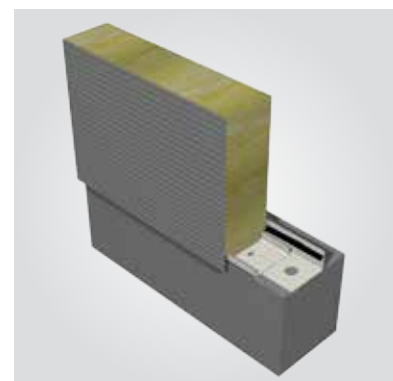
For Trimoterm energy efficient and airtight solution Trimoterm expert team has developed a brand new detail concept, accessories and precise assembly instructions which assure exceptional prevention of air and heat losses.



1 | Detail attics



2 | Edge fixing with HF102 profile



3 | Detail of attachment to the base beam

## THERMALLY EFFICIENT AND NON - COMBUSTIBLE INSULATION

Trimoterm Power T are roof and facade panels with a much higher thermal insulation than traditional products. They can reach a U value down to 0.15 W/m<sup>2</sup>K and fire resistance up to EI 240.

Panel thickness [mm]	50	60	80	100	120	133	150	172	200	240	250
<b>U Thermal transmittance</b> [W/m <sup>2</sup> K] (EN 14509:2006)	0.69	0.58	0.45	0.36	0.30	0.28	0.25	0.21	0.19	0.16	0.15
<b>EI Fire resistance class</b> (EN 13501-2)	/	EI 30	EI 60	EI 120	EI 120	EI 120	EI 180	EI 180	EI 240	EI 240	EI 240
<b>Combustibility of insulant core</b> (EN 13501-1)	Non - combustible, class A1										

Trimoterm Power T mineral wool core by Knauf Insulation.

## ENERGY PERFORMANCE CERTIFICATE AND CALCULATION

Trimo's team of experts can perform Energy Performance Calculations and issue Certifications, which will set out the energy efficiency grade of a particular building. We will also consult about how to improve the energy efficiency of either a new or an existing building so that it will consume less energy, save money and impact less on the environment.

Trimo's accredited energy assessors will provide energy performance calculations for any kind of building and at locations worldwide, while Energy Performance Certificates are provided in accordance to Slovenian Building Regulations.

### Support and consulting:

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**Trimoterm and Trimoterm Power  
are product brands of Trimo.**

Trimo is one of the leading providers of building envelope solutions. With over 50 years of experience and worldwide realized projects, its engineering, production and sales teams provide efficient, innovative and sustainable solutions to meet your demands. Trimo sells its products and services under its own brand across more than 50 countries. Trimo has a sales network in more than 25 countries and has four production facilities worldwide.

Trimo expert team is a partner you can count on to provide comprehensive support throughout the entire duration of your project.

**Trimo, d. d.**

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