

# Thermolight®

Translucent insulation material (TIM) made of glass fibres  
for profiled glass façades



Sainsbury Wellcome Center - Ian Ritchie Architects  
LEAF Awards: Overall winner; Best Facade Design (2016)

Perfect interaction of:

- Thermal insulation
- Sun protection
- Light diffusion
- Pleasant indoor climate

# Translucent Insulation Material (TIM)

Already industrial glazing (U-profiled glass) is no longer used for business and industrial buildings only, but has also arrived in high profile and modern architectural projects.

Double or multi-layered U-profiled glass is the ideal construction element to build aesthetic sashless facades and windows. In comparison to post-and-beam-constructions U-profiled glass can be used to fill window openings without grid dimensions of any width endlessly and cost-effectively up to heights of approximately 7 m.

Our translucent insulation insert Thermolight®100 improves the daylight utilisation of double-glazed and triple-glazed U-profiled glass facades, while providing excellent thermal insulation, sun protection and glare protection. The high light diffusion achieves virtually shadow-free room illumination.





# Optimisation of profiled glass façades

Thermolight specialises in the development and production of translucent insulation material (TIM) for profiled glass and accessories.

It is based on the same technology and know-how as that of the TIMax product, which was the most widely used thermal insulation in this sector for over 15 years, but whose production was discontinued at the beginning of 2022 and its machines, patents and expertise were taken over by Thermolight-GmbH & Co. KG.

Thermolight® is specially designed for use in facades made of U-profiled glass.

The translucent thermal insulation made of glass fibres combines light transmission with excellent thermal insulation of the facade (U-value) and enables glare-free use of daylight.



# Why Thermolight?



Sainsbury Wellcome Center - Ian Ritchie Architects

- Outstanding thermal insulation combined with first-class sun protection
- Unique light diffusion
- Pleasant feel-good room climate

With the translucent thermal insulation insert made of specially developed glass fibres, planners can economically adapt profiled glass façades to meet modern requirements for indoor climate, lighting and energy efficiency.



English National Ballet - Glenn Howells Architects  
RIBA Awards: RIBA London, Building of the Year 2021



Sports hall Görlinger Zentrum - Gebäudewirtschaft

## Sun and glare protection

With increased requirements for solar shading, Thermolight® reduces the energy input (g value) to a desired minimum and also prevents undesirable glare effects.

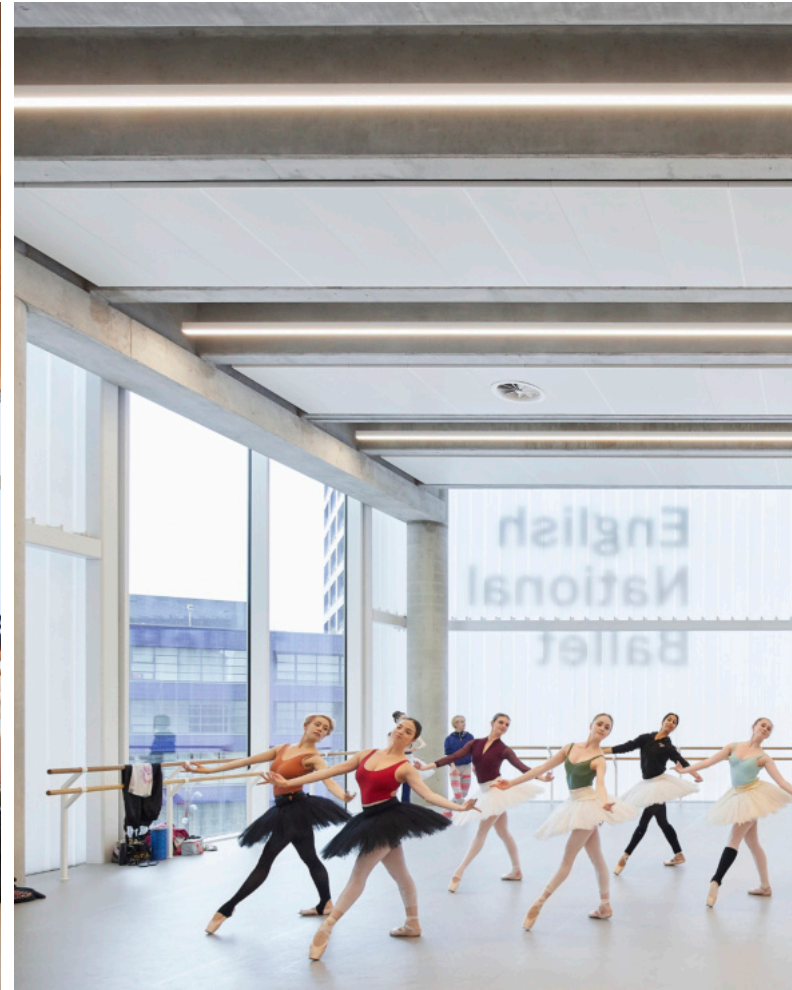






Open School Cologne - Hausmann Architecture









English National Ballet - Glenn Howells Architects

## Winter Visual Arts Center

Renowned architects such as Steven Holl rely on the combination of profiled glass and translucent thermal insulation.



## Long term experience



Visual Arts Building, Iowa - Steven Holl

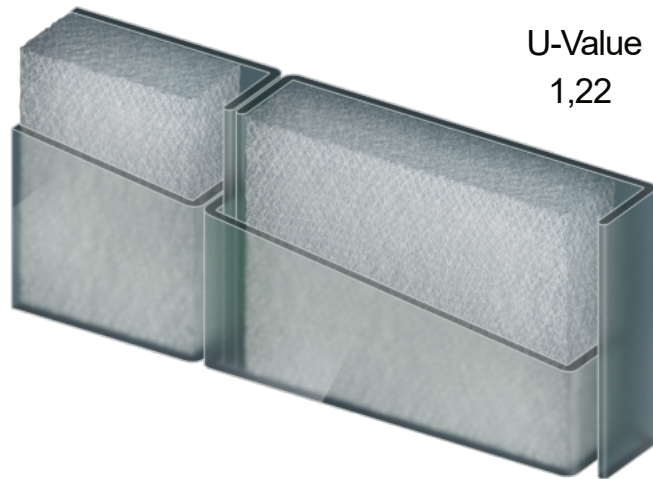
Facades with translucent insulation material (TIM) have been successfully installed for almost 20 years. Due to its material properties, Thermolight® adapts ideally and flexibly to the dimensional tolerances of the profiled glass in accordance with EN. When correctly dimensioned and installed, there are no visible joints between the glass flange and Thermolight®.

Likewise, heat cracks cannot occur on the translucent thermal insulation, for example.



# TIM Standard constructions

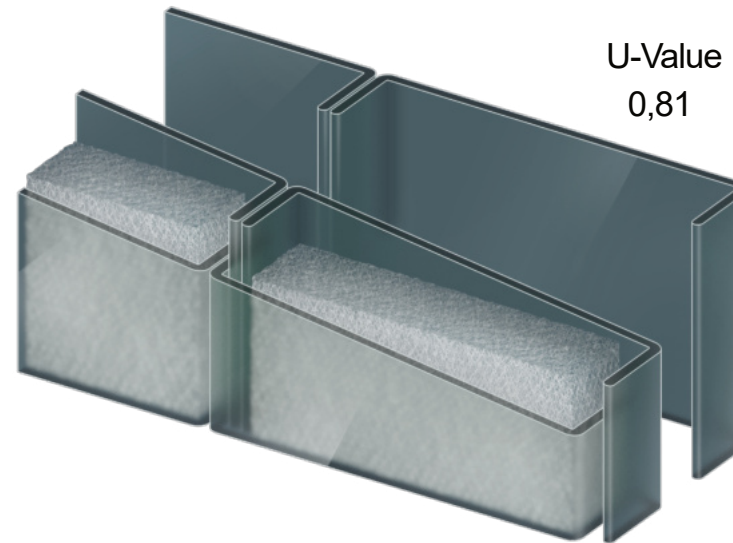
## TIM IN DOUBLE GLAZED LINIT- PROFILED GLASS



U-Value  
1,22

The standard construction for simple  
thermally insulated LINIT glass façades

## TIM IN TRIPLE GLAZED LINIT- PROFILED GLASS



U-Value  
0,81

The solution for LINIT façades with im-  
proved thermal insulation

TWO TIMES TIM IN DOUBLE  
GLAZED LINIT-PROFILED GLASS -  
FLANGE ON FLANGE



U-Value  
0,71

TWO TIMES TIM IN DOUBLE  
GLAZED LINIT-PROFILED GLASS -  
FLANGES OFFSET

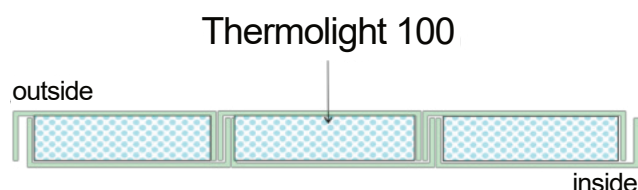


U-Value  
0,67

The standard construction for simple thermally  
insulated LINIT glass façades

# DATA SHEET - COMBINATION OF LAMBERT'S LINIT PROFILED GLASS WITH THERMOLIGHT PRODUCTS

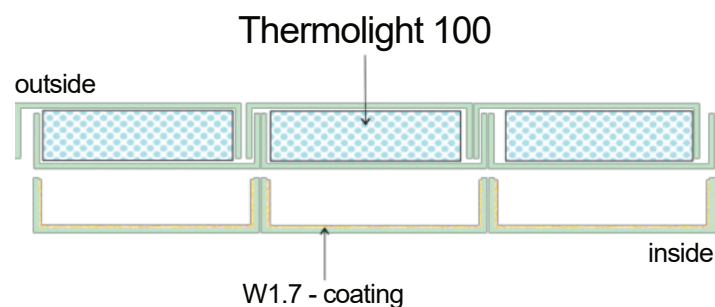
## 1. DOUBLE-GLAZED INSTALLATION METHOD LAMBERTS' LINIT WITH ONE THERMOLIGHT 100 (SERIES 83)



LAMBERTS' LINIT Outer shell	Thermolight Translucent insulation material TIM	LAMBERTS' LINIT Inner shell	U-Value (in W/m²K) (tested HFB according to EN 1946-4, DIN EN ISO 8990 and 12567-1)	Visible light transmission (tested according to EN 52022-3 and EN 410)	g-Value	STC Value Rw (in dB(A)) (estimated)
<b>a) Standard green glass melt:</b>						
LINIT 60/7 standard	Thermolight 100	LINIT 60/7 standard	1,22	0,33	0,33	43
LINIT 60/7 S (sandblasted)	Thermolight 100	LINIT 60/7 standard	1,22	0,27	0,28	43
LINIT 60/7 S (sandblasted)	Thermolight 100	LINIT 60/7 S (sandblasted)	1,22	0,21	0,26	43
LINIT 60/7 TCH L1 (color)	Thermolight 100	LINIT 60/7 standard	1,22	0,24	0,25	43
LINIT 60/7 TCH intensive white (color)	Thermolight 100	LINIT 60/7 standard	1,22	0,12	0,14	43
<b>b) Low iron glass melt:</b>						
LINIT 60/7 low iron	Thermolight 100	LINIT 60/7 low iron	1,22	0,35	0,36	43
LINIT 60/7 low iron S	Thermolight 100	LINIT 60/7 low iron	1,22	0,29	0,31	43
LINIT 60/7 low iron S	Thermolight 100	LINIT 60/7 low iron S	1,22	0,24	0,30	43
LINIT 60/7 low iron TCH L1 (color)	Thermolight 100	LINIT 60/7 standard	1,22	0,26	0,29	43
LINIT 60/7 low iron TCH intensive white	Thermolight 100	LINIT 60/7 standard	1,22	0,14	0,17	43

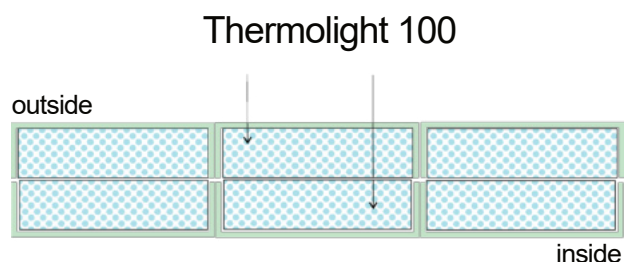


## 2. TRIPLE-GLAZED INSTALLATION METHOD LAMBERTS' LINIT WITH SINGLE-GLAZED 1.7W AND ONE THERMOLIGHT 100(SERIES 161)



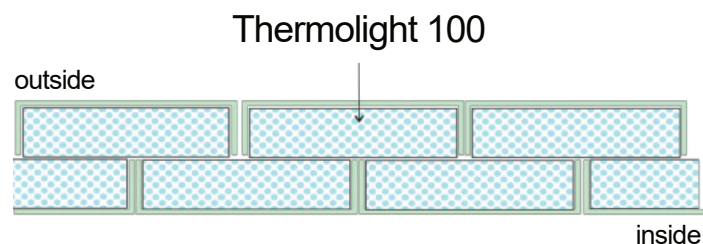
LAMBERTS' LINIT Outer shell	Thermolight Translucent insulation material TIM	LAMBERTS' LINIT middle shell	LAMBERTS' LINIT Inner shell	U-Value (in W/m²K) (tested HFB according to EN 1946-4, DIN EN ISO 8990 and 12567-1)	Visible light transmission (tested according to EN 52022-3 and EN 410)	g-Value	STC Value Rw (in dB(A)) (estimated)
<b>a) Standard green glass melt:</b>							
LINIT 60/7 standard	Thermolight 100	LINIT 60/7 standard	LINIT 60/7 standard 1.7W	0,81	0,26	0,28	57
LINIT 60/7 S (sandblasted)	Thermolight 100	LINIT 60/7 standard	LINIT 60/7 standard 1.7W	0,81	0,23	0,26	57
LINIT 60/7 S (sandblasted)	Thermolight 100	LINIT 60/7 S (sandblasted)	LINIT 60/7 standard 1.7W	0,81	0,21	0,23	57
LINIT 60/7 TCH L1 (color)	Thermolight 100	LINIT 60/7 standard	LINIT 60/7 standard 1.7W	0,81	0,21	0,23	57
<b>b) Low iron glass melt:</b>							
LINIT 60/7 low iron	Thermolight 100	LINIT 60/7 standard	LINIT 60/7 standard 1.7W	0,81	0,27	0,31	57
LINIT 60/7 low iron S	Thermolight 100	LINIT 60/7 low iron	LINIT 60/7 standard 1.7W	0,81	0,25	0,29	57
LINIT 60/7 low iron S	Thermolight 100	LINIT 60/7 low iron S	LINIT 60/7 standard 1.7W	0,81	0,23	0,27	57
LINIT 60/7 low iron TCH L1 (color)	Thermolight 100	LINIT 60/7 low iron	LINIT 60/7 standard 1.7W	0,81	0,24	0,28	57

### 3. DOUBLE-GLAZED INSTALLATION METHOD LAMBERTS' LINIT WITH TWO THERMOLIGHT 100 (SERIES 161) - FLANGE ON FLANGE



LAMBERTS' LINIT Outer shell	Thermolight Translucent insulation material TIM	Thermolight Translucent insulation material TIM	LAMBERTS' LINIT Inner shell	U-Value (in W/m²K) (tested HFB according to EN 1946-4, DIN EN ISO 8990 and 12567-1)	Visible light transmission (tested according to EN 52022-3 and EN 410)	g-Value	STC Value Rw (in dB(A)) (estimated)
<b>a) Standard grüne Glasschmelze:</b>							
LINIT 60/7 standard	Thermolight 100	Thermolight 100	LINIT 60/7 standard	0,71	0,19	0,21	43
LINIT 60/7 S (sandblasted)	Thermolight 100	Thermolight 100	LINIT 60/7 standard	0,71	0,16	0,18	43
LINIT 60/7 S (sandblasted)	Thermolight 100	Thermolight 100	LINIT 60/7 S (sandblasted)	0,71	0,13	0,18	43
LINIT 60/7 TCH L1 (color)	Thermolight 100	Thermolight 100	LINIT 60/7 standard	0,71	0,15	0,18	43
LINIT 60/7 TCH intensive white (color)	Thermolight 100	Thermolight 100	LINIT 60/7 standard	0,71	0,08	0,11	43
<b>b) Eisenarme Glasschmelze:</b>							
LINIT 60/7 low iron	Thermolight 100	Thermolight 100	LINIT 60/7 low iron	0,71	0,20	0,22	43
LINIT 60/7 low iron S	Thermolight 100	Thermolight 100	LINIT 60/7 low iron	0,71	0,17	0,21	43
LINIT 60/7 low iron S	Thermolight 100	Thermolight 100	LINIT 60/7 low iron S	0,71	0,14	0,19	43
LINIT 60/7 low iron TCH L1 (color)	Thermolight 100	Thermolight 100	LINIT 60/7 standard	0,71	0,16	0,20	43
LINIT 60/7 low iron TCH intensive white	Thermolight 100	Thermolight 100	LINIT 60/7 standard	0,71	0,09	0,13	43

## 4. DOUBLE-GLAZED INSTALLATION METHOD LAMBERTS' LINIT WITH TWO THERMOLIGHT 100 (SERIES 161) - FLANGES OFFSET



LAMBERTS' LINIT Outer shell	Thermolight Translucent insulation material TIM	Thermolight Translucent insulation material TIM	LAMBERTS' LINIT Inner shell	U-Value (in W/m²K) (tested HFB according to EN 1946-4, DIN EN ISO 8990 and 12567-1)	Visible light transmission (tested according to EN 52022-3 and EN 410)	g-Value	STC Value Rw (in dB(A)) (estimated)
<b>a) Standard grüne Glasschmelze:</b>							
LINIT 60/7 standard	Thermolight 100	Thermolight 100	LINIT 60/7 standard	0,67	0,19	0,21	43
LINIT 60/7 S (sandblasted)	Thermolight 100	Thermolight 100	LINIT 60/7 standard	0,67	0,16	0,18	43
LINIT 60/7 S (sandblasted)	Thermolight 100	Thermolight 100	LINIT 60/7 S (sandblasted)	0,67	0,13	0,18	43
LINIT 60/7 TCH L1 (color)	Thermolight 100	Thermolight 100	LINIT 60/7 standard	0,67	0,15	0,18	43
LINIT 60/7 TCH intensive white (color)	Thermolight 100	Thermolight 100	LINIT 60/7 standard	0,67	0,08	0,11	43
<b>b) Eisenarme Glasschmelze:</b>							
LINIT 60/7 low iron	Thermolight 100	Thermolight 100	LINIT 60/7 low iron	0,67	0,20	0,22	43
LINIT 60/7 low iron S	Thermolight 100	Thermolight 100	LINIT 60/7 low iron	0,67	0,17	0,21	43
LINIT 60/7 low iron S	Thermolight 100	Thermolight 100	LINIT 60/7 low iron S	0,67	0,14	0,19	43
LINIT 60/7 low iron TCH L1 (color)	Thermolight 100	Thermolight 100	LINIT 60/7 standard	0,67	0,16	0,20	43
LINIT 60/7 low iron TCH intensive white	Thermolight 100	Thermolight 100	LINIT 60/7 standard	0,67	0,09	0,13	43



## Fire protection

Profiled glass meets the requirements of fire protection class A1, Thermolight®100 meets the requirements of fire protection class B1.

## Quality assurance

Thermolight® products are distributed exclusively with officially tested profiled glass products certified by Thermolight GmbH & Co. Kg in order to maintain the desired high quality standard.

The following technical values are expressly not transferable to other glass products.

Only actual test values from tests at authorised testing institutes are used for this purpose. Unsubstantiated statements, estimates and calculations by other glass manufacturers are not recognised.

Please also always refer to our product specifications and installation instructions and videos (available on our website [www.thermolight.info](http://www.thermolight.info) or from our sales staff).

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Our liability and guarantee are in line exclusively with the current edition of our “general terms and conditions of business. Current versions are available on our website, [www.thermolight.info](http://www.thermolight.info).

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Due to different photography and printing processes, the colours of the actual products and their perception in practice may differ from those in the illustrations on these pages.



Swiss Embassy Residence - Steven Holl Architects

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