BUtgb – UBAtc ATG 03/H539 Valid from 03.07.2003 to 02.07.2008

Approval for product with certification

CELLULAR GLASS

This product approval is limited solely to the declaration of product characteristics referred to below. It makes no claim to suitability for use in any one application or another (see Item 1 of the General Remarks below).

PRODUCT GROUP
Place of manufacture, plant:
P.C.E.. N.V./S.A., B-Tessenderlo

Cladding:
Type 1: Glass coating + PE film
Type 2: Aluminium 50 µm

Product specifications (NBN EN 13167:2001)

Name of product	Cladding type	Length (mm)	Width (mm)	Thickness (mm)	λ_D [(W/(m.K)]	Reaction to fire (Euroclass)
FOAMGLAS® T4 WDS	- / -	300, 600 ± 2	450 ± 2	40-180 ± 2	**0,040**	A1
FOAMGLAS® Wall Board T4 WDS	1 / 1	1200 ± 5	600 ± 2	40-180 ± 2	**0,040**	F
FOAMGLAS® Wall Board Alu T4 WDS	2 / 1	1200 ± 5	600 ± 2	40-150 ± 2	**0,040**	D-s2-d2 (*)
FOAMGLAS® T4	- / -	300, 600 ± 2	450 ± 2	40-180 ± 2	**0,042**	A1
FOAMGLAS® Wall Board T4	1 / 1	1200 ± 5	600 ± 2	40-180 ± 2	**0,042**	F
FOAMGLAS® Wall Board Alu T4	2 / 1	1200 ± 5	600 ± 2	40-150 ± 2	**0,042**	D-s2-d2 (*)
FOAMGLAS® Ready Board T4	1 / 1	1200 ± 5	600 ± 2	40-180 ± 2	**0,042**	F
FOAMGLAS® Floor Board T4	1 / 1	1200 ± 5	600 ± 2	40-180 ± 2	**0,042**	F
FOAMGLAS® Tapered T4	- / -	300, 600 ± 2	450 ± 2	40-180 ± 2	**0,042**	A1
FOAMGLAS® S3	- / -	300, 600 ± 2	450 ± 2	40-180 ± 2	**0,045**	A1
FOAMGLAS® Ready Board S3	1 / 1	1200 ± 5	600 ± 2	40-180 ± 2	**0,045**	F
FOAMGLAS® Floor Board S3	1 / 1	1200 ± 5	600 ± 2	40-180 ± 2	**0,045**	F
FOAMGLAS® Tapered S3	- / -	300, 600 ± 2	450 ± 2	40-180 ± 2	**0,045**	A1
FOAMGLAS® F	- / -	300, 600 ± 2	450 ± 2	40-160 ± 2	**0,050**	A1
FOAMGLAS® Ready Board F	1 / 1	1200 ± 5	600 ± 2	40-160 ± 2	**0,050**	F
FOAMGLAS® Floor Board F	1 / 1	1200 ± 5	600 ± 2	40-160 ± 2	**0,050**	F
FOAMGLAS® Tapered F	- / -	300, 600 ± 2	450 ± 2	40-160 ± 2	**0,050**	A1
FOAMGLAS® Perinsul	1 / 1	450 ± 2	± 2	50 ± 2	**0,050**	F

Name of product	Squaring	Flatness (mm)	Dimensional stability	Point load	Compression	Flexure	Perpendicular traction value	Water absorption (short-term)	Water absorption (long-term)
FOAMGLAS® T4 WDS	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 2 ≤ 2	CS (Y) 400 ≥ 400	BS400 ≥ 400	TR100 ≥ 100	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® Wall Board T4 WDS	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 2 ≤ 2	CS (Y) 400 ≥ 400	BS400 ≥ 400	TR100 ≥ 100	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® Wall Board Alu T4 WDS	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 2 ≤ 2	CS (Y) 400 ≥ 400	BS400 ≥ 400	TR100 ≥ 100	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® T4	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 700 ≥ 700	BS450 ≥ 450	TR100 ≥ 100	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® Wall Board T4	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 700 ≥ 700	BS450 ≥ 450	TR100 ≥ 100	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® Wall Board Alu T4	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 700 ≥ 700	BS450 ≥ 450	TR100 ≥ 100	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® Ready Board T4	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 700 ≥ 700	BS450 ≥ 450	TR100 ≥ 100	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® Floor Board T4	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 700 ≥ 700	BS450 ≥ 450	TR100 ≥ 100	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® Tapered T4	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 700 ≥ 700	BS450 ≥ 450	TR100 ≥ 100	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® S3	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 900 ≥ 900	BS500 ≥ 500	TR100 ≥ 100	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® Ready Board S3	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 900 ≥ 900	BS500 ≥ 500	TR100 ≥ 100	WS ≤ 0,5	WL(P) ≤ 0,5
FOAMGLAS® Floor Board S3	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 900 ≥ 900	BS500 ≥ 500	TR100 ≥ 100	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® Tapered S3	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 900 ≥ 900	BS500 ≥ 500	TR100 ≥ 100	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® F	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 1600 ≥ 1600	BS550 ≥ 550	TR150 ≥ 150	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® Ready Board F	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 1600 ≥ 1600	BS550 ≥ 550	TR150 ≥ 150	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® Floor Board F	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 1600 ≥ 1600	BS550 ≥ 550	TR150 ≥ 150	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® Tapered F	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 1600 ≥ 1600	BS550 ≥ 550	TR150 ≥ 150	WS ≤ 0,5	WL (P) ≤ 0,5
FOAMGLAS® Perinsul	$S_{l,b} \leq 6$ mm/m / $S_d \leq 2$ mm	≤ 2	DS (TH) $\Delta\varepsilon_{l,b} \leq 0,5 / \Delta\varepsilon_d \leq 1$	PL (P) 1 ≤ 1	CS (Y) 1600 ≥ 1600	BS550 ≥ 550	TR150 ≥ 150	WS ≤ 0,5	WL (P) ≤ 0,5

(**) : 'deemed to satisfy' cfr. EN ISO 10456

Belgian Union for Technical Approvals
Member of the European Union for Technical Approvals in the Construction Sector

Certified λ_D and/or R_D values for thermal insulation materials.
General Remarks

1. OBJECT

The ATG/H **product** approval relates only to the declared and certified characteristics of the product, in accordance with the EN Standards cited above and for general applications, but without making any judgement with regard to suitability for use in specific applications. For these, the ATG* **technical** approval relates to the criteria and requirements for approval.
The product approval comprises a monitored test, carried out on a stock item or on site.
In accordance with Paragraph STS 00.31 and Article 12 of the Ministerial Decree of 10.08.1977 relating to works under public contract, these insulating materials may be exempted from technical acceptance tests with supply to the level of the intrinsic quality of the material. The main clients or their representative must nevertheless check the marking and appearance.

2. DECLARED λ_D and/or R_D VALUES

These λ_D and/or R_D values are determined statistically on the basis of individual measurements. They are determined at a level of confidence of 90/90, in accordance with the harmonised product standards NEN EN 13162 to 13171 and EN ISO 10456, and certified in accordance with the Conformity Standard NBN EN 13172; the values are declared by the manufacturers.

3. PLACEMENT

For each instance of use, a correction factor must be applied to the heat transfer coefficient of the construction element. The method of calculation is given in STS 08.82 -2003 and is mentioned in the ATG technical approval for the specific application.

* The specific reaction to fire is included in this same ATG

The product approval is issued on the basis of:
- The Ministerial Decree of 6 September 1991 relating to the organization of technical approvals and the preparation of type specifications in the construction sector (Belgian State Gazette of 29 October 1991)
- The application submitted by the company concerned
- The opinion of the specialist “Completion” group of the Technical Approval Commission, formulated on the basis of the report presented by the “Insulation Materials” executive unit of the UBAtc/BUtgb.
- Favourable opinion relating to the certification.

“Insulation Materials” executive unit: