

ATG Technical Approval with Certification



**Woodwork - Semi-finished
products for door and window
systems with aluminium profiles**

**Insulating strips for
aluminium profiles with
thermal break ADLER**

Valid from 17/04/2023
until 16/04/2028

Approval and Certification Body



Cantersteen 47 1000 Brussels
www.bcca.be - mail@bcca.be

Approval holder:

ADLER-HIS
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1 Objective and scope of the technical approval

This technical approval is based on the favourable evaluation of the product (as described above) by an independent approval body designated by UBAtc, BCCA, for the application mentioned in this technical approval.

The technical approval serves as a record of the approval inspection. This inspection consists of the following: identification of relevant properties of the system for the intended application, laying/installation method, product design and reliability of production.

The Technical Approval provides a high level of reliability, based on the statistical interpretation of inspection results, regular monitoring, adjustments in order to keep abreast of the latest technical developments and quality monitoring by the Approval Holder.

In order to retain the technical approval, the approval holder must continuously provide evidence that he is taking all necessary steps to demonstrate that the system is suitable for use. In order to do so, it is vital that the conformity of the system with the technical approval is monitored. This monitoring is entrusted by the UBAtc to an independent certification body known as BCCA.

The approval holder is required to adhere to the inspection results described in the technical approval if he makes information available to third parties. The UBAtc or certification body may take any steps that become appropriate if the approval holder [or the distributor] intentionally fails to do so (to a sufficient extent).

The technical approval and certification for conformity of the product to the technical approval are independent of tasks conducted individually. The contractor and/or architect remain fully responsible for the conformity of the completed work with the provisions contained in the specifications.

The technical approval does not cover, unless stated in specific provisions, on-site safety, health and safety aspects and the sustainable use of raw materials. As a result, the UBAtc shall not be responsible, under any circumstances, for any damage caused by the failure of the Approval Holder, contractor(s) and/or architect to respect provisions relating to on-site safety, health aspects and the sustainable use of raw materials.

Note: in this technical approval, the word "contractor" will always be used when referring to the entity that completes the work. This word has the same meaning as other frequently used words, such as "operator", "installer" and "fitter".

2 Object

This technical approval describes the properties of ADLER insulating strips, made from polyamide reinforced with glass fibre (PA66 GF 25), which are used as a thermal break in aluminium profiles, resulting in improved thermal performance for door and window systems. These strips are in compliance with NBN EN 14024, in terms of the suitability of the thermal break material (NBN EN 14024, § 5.2) and mechanical durability of the thermal break (NBN EN 14024, § 5.3, § 5.4 and § 5.5).

Approval with certification requires continuous monitoring of production by the manufacturer, in addition to regular monitoring of production by a certification body designated by the UBAtc.

The technical product approval with certification covers the actual strips, but not the systems and assembly process used to manufacture the window profiles, the manufacture or installation of windows or quality of execution.

3 Materials

3.1 PA66 GF25

The strips are made from polyamide PA 66 reinforced with 25% glass fibre.

Table 1 – Properties of ADLER PA66 GF25 materials

Properties	Units	Norm	Criteria for dry extrusion(*)
Density	g/cm ³	NBN EN ISO 1183-1	1.30 ± 0.05
Maximum tensile strength	N/mm ²	NBN EN ISO 527-2 / -4	≥ 80
Rupture elongation	%	NBN EN ISO 527-2 / -4	≥ 3
Elasticity modulus	N/mm ²	NBN EN ISO 527-2 / -4	≥ 4500
Hardness	ShD	NBN EN ISO 868	82 ± 4
Shock resistance CHARPY	KJ/m ²	NBN EN ISO 179-1 2fU	≥ 30 or without rupture
Ash content	%	NBN EN ISO 3451-1	25 ± 2.5
Melting temperature	°C	NBN EN ISO 11357-3	≥ 250
Heat conductivity coefficient	W/m.K	NBN EN ISO 10456	0.3
Expansion coefficient (longitudinally)	1/K	NBN EN ISO 11359-2	(35 ± 15).10 ⁻⁶
Maximum water absorption	%	NBN EN ISO 62	6 ± 1.0
Equilibrium water content (in the air) 23 °C 50 % R.H. after 24h	%	NBN EN ISO 1110	1.3 ± 0.3

(*) : water content ≤ 0,2 % of weight

4 Geometrical characteristics of the thermal break

The ADLER strips are available in different forms and dimensions. The crimping areas are shaped like a dovetail or a similar shape. The strips are available in different heights, thicknesses and forms.

Tolerance:

- height tolerances: ± 0.05 mm - ± 0.15 mm, depending on the height,
- thickness tolerances: ± 0,05 mm.

Specially shaped strips can be prepared, such as strips with one cavity or more, hooks, bridge, asymmetric strips, ... (see examples in fig. 1).

5 Manufacture

5.1 PA66 GF25

The strips are extruded from PA6.6 GF 25 polyamide. They are produced by extrusion in the plant of: ADLER-HIS, Çerkeşli OSB İMES Mahallesi, 20.Cadde, No:6, 41455 Dilovası/Kocaeli, Turkey/Türkiye

The strips are labelled as follows on the strip packages and the pallets: ATG No. H978, article number, number, length, material, date, batch number, etc.

The standard packaging consists of wood or metal boxes.

6 Performance

6.1 Suitability of the thermal break material

Evaluation of the suitability of the strip material is based on the results taken from the measurement of characteristics after immersion in water, exposure to humidity, after tests have been conducted on tensile fissures and the fragility test described in NBN EN 14024:2005 in § 5.2, § 5.2.3, § 5.2.4 and § 5.2.5. The results proved satisfactory.

6.2 Mechanical durability of thermal break

The evaluation of the mechanical durability of strips is based on the results taken from the measurement of characteristics before (§ 5.3 and § 5.4) and after accelerated artificial aging, as described in § 5.5 of NBN EN 14024. The results proved satisfactory.

7 Fitting

The strips are crimped into lacquered or anodised aluminium profiles before or after surface treatment (see Fig. 2).

After crimping, the aluminium penetrates the strip.

The actual crimping is not covered by the approval.

8 Conditions

- A.** This technical approval refers exclusively to the product mentioned on the cover page of the technical approval.
- B.** Only the Approval Holder and, if applicable, the distributor may call for the application of this technical approval.
- C.** The approval holder and, if applicable, the distributor are not permitted, in any way, to use the name of the UBAtc, its logo, the technical approval mark, the technical approval or the approval number to demand the evaluation of products that fail to comply with the technical approval or products, equipment or systems, including their properties or characteristics, which do not form the object of the technical approval.
- D.** Information provided in any way by the approval holder, distributor or an approved contractor or by their representatives for (potential) users of the product, which is described in the technical approval (e.g. for clients, contractors, architects, consultants, designers, etc.) must not be incomplete or contradict the content of the technical approval or information mentioned in the technical approval.
- E.** The approval holder is bound at all times to provide UBAtc, the approval body and the certification body with prompt or prior notification of any adjustments made to primary materials and products, installation instructions and/or the manufacturing, installation and equipment process. According to the information communicated, the UBAtc, the approval body and the certification body will judge whether it is necessary to adjust the technical approval.
- F.** The technical approval is based on the available knowledge and technical/scientific information, together with information provided by the applicant and complemented by an approval inspection, which takes account of the specific nature of the product. However, users remain responsible for selecting the product, equipment or system, as described in the technical approval, for the specific use intended by the user.
- G.** The intellectual property rights associated with the technical approval, including the copyright, belong exclusively to the UBAtc.
- H.** Any references to the technical approval must be accompanied by an ATG index (ATG H978) and the validity period.
- I.** The UBAtc, the approval body and the certification body cannot be held responsible for any damage or adverse consequences suffered by third parties (e.g. the user) that result from the failure of the approval holder or distributor to respect the provisions of Article 8.

9 Diagrams

Diagram 1: Example of strips

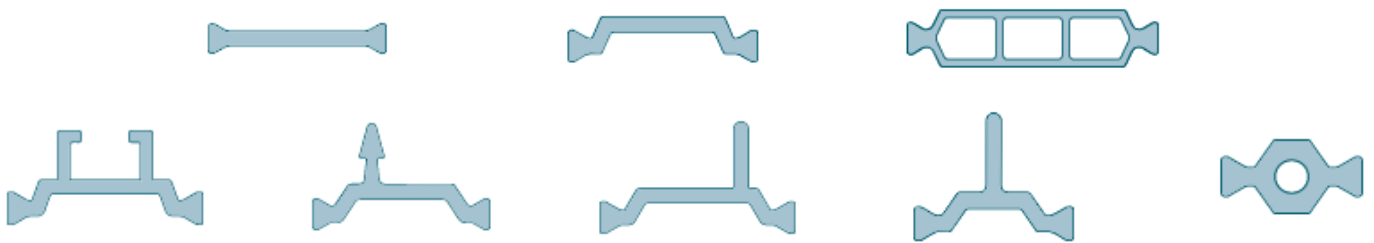
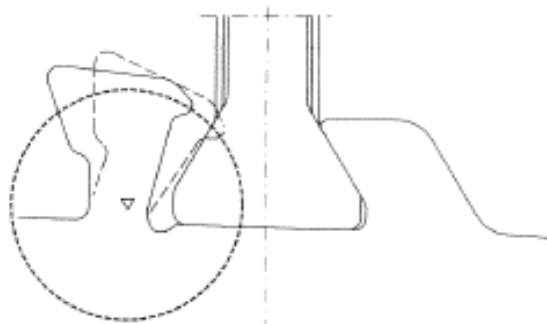


Diagram 2: Example of strip installation



This technical approval has been published by UBAtc, under the responsibility of the approval body BCCA, and based on favourable feedback from the specialist "FAÇADES" group, issued on 21 October 2022.

In addition, the BCCA certification body has confirmed that the production process meets the conditions for certification and that a certification agreement was signed by the technical approval holder.

Date of issue: 17 April 2023.

For UBAtc, declaration of the validity of the approval process

For the approval and certification body



Eric Winnepenninckx,
Secretary general



Benny de Blaere,
Director



Olivier Delbrouck,
Managing director

This technical approval shall remain valid, provided the product, its manufacture and all processes that are appropriate for this purpose:

- are maintained, in order to achieve, as a minimum, the test results defined in the approval document;
- are continuously monitored by the certification body, which confirms that the certification continues to be valid;

If these conditions are no longer met, the technical approval shall be suspended or withdrawn and the approval document shall be deleted from the UBAtc website. The technical approvals are regularly updated. It is recommended that you always use the version published on the UBAtc website (www.butgb-ubtc.be).

The most recent version of the Technical Approval can be consulted using this QR code.



UBAtc asbl has been notified by the FPS Economy within the framework of Regulation (EU) 305/2011. Certification bodies designated by UBAtc asbl operate in compliance with a system that is set to be accredited by BELAC (www.belac.be).

UBAtc asbl is an accredited body and member of:



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