

*[The document presented for translation consists of twenty four pages and is drawn up of the letterhead stationery of the Building Research Institute. In the header of pages 2 to 24 the logotype of the Institute, the following number: AT-15-5022/2007, and page numbering. Italicised notes within square brackets have been inserted by the translator.]*

*[The logotype of the Building Research Institute]*

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Series: TECHNICAL APPROVALS

**AT-15-5022/2007**

### **ITB TECHNICAL APPROVAL**

Pursuant to the Ordinance of the Minister of Infrastructure dated November 8, 2004 on technical approvals and organisational units authorised to issue these (*Dziennik Ustaw /Journal of Laws/* no. 249, of 2004, item 2497), following the approval procedure held by The Building Research Institute of Warsaw, on application by:

**ALPOL GIPS Sp. z o.o.**

**Fidor, 26-200 Końskie**

the product:

**SET OF PRODUCTS FOR THERMAL INSULATION  
INCLUDED IN ALPOL<sup>®</sup> EKO PLUS SYSTEM**

has been found suitable for use in the building industry, according to the scope and principles detailed in the Appendix which constitutes an integral part of this ITB Technical Approval.



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**Anna Stencel**  
**Certified translator and interpreter of English**

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Validity:

May 25, 2012

[A round seal in red ink featuring the national emblem of the Republic of Poland and the following inscription in the surround: Building Research Institute.]

Director

Acting Director, Deputy Economic Cooperation Director

mgr inż. Marek Kaproń [*and an illegible signature*]

Appendix:

General and Technical Provisions

Warsaw, May 25, 2007

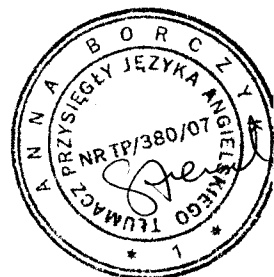
The ITB AT-15-5022/2007 Technical Approval of May 2007 amends the ITB AT-15-5022/2007 Technical Approval of January 2007. The document hereof contains 24 pages. The text of this document may only be reproduced in whole. Publication or distribution in any other form of fragments of the Technical Approval requires written consent of the Building Research Institute.



## GENERAL AND TECHNICAL PROVISIONS

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## 1. SCOPE OF APPROVAL

The subject of the ITB Technical Approval is ALPOL® EKO PLUS thermal insulation system for external walls of buildings, consisting of the application of a layered structure of Styrofoam, as the insulation course, reinforcing layer of adhesive mortar, reinforcing mesh and plaster finish to the existing walls. Styrofoam boards can be fixed either with adhesive mortar alone or with the adhesive and mechanical fixtures.

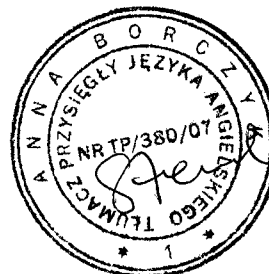
ALPOL® EKO PLUS thermal insulation system is available in five variants: M – with mineral plaster, N – with acrylic plaster, P – with polysilicate plaster, SIS – with silicone-silicate plaster and WINTER – with ALPOL® AK 534 WINTER adhesive and ALPOL® AT 326 WINTER mineral plaster or mineral, acrylic or polysilicate plaster referred to in this Technical Approval, suitable for application in ambient and substrate temperatures above + 5 °C.

The system described is composed by ALPOL Gips Sp. z o.o. of Fidor.

The ALPOL® EKO PLUS thermal insulation system comprises:

- 1) ALPOL® AK 530 adhesive mortar for bonding Styrofoam boards to substrates. The mortar is delivered as a dry mix which should be mixed in proportion of 5.0 ÷ 5.5 I water with 25 kg of dry mix.
- 2) ALPOL® AK 531 and ALPOL® AK 532 adhesive mortars intended for the application of the reinforcing layer and for bonding Styrofoam boards to substrates (used alternatively with ALPOL® AK 530 mortar). The mortar is delivered as a dry mix which should be mixed in proportion of 5.0 ÷ 6.0 I water with 25 kg of dry mix.
- 3) ALPOL® AK 534 WINTER, adhesive mortar for application of a reinforcing layer and bonding Styrofoam boards to substrates and insulated with the ALPOL® EKO PLUS WINTER system. The mortar is delivered as a dry mix which should be mixed in proportion of 5.25 I water with 25 kg of dry mix.
- 4) ALPOL® AG 701 primer, white or coloured, for priming reinforced layer for mineral plaster finish. Delivered as ready to use preparation.
- 5) ALPOL® AG 705 primer, white or coloured, for priming reinforced layer for acrylic plaster finish. Delivered as ready to use preparation.
- 6) ALPOL® AG 706 primer, white or coloured, for priming reinforced layer for polysilicate or silicate-silicone plaster finish. Delivered as ready to use preparation.
- 7) ALPOL® 145 fibreglass mesh, basis weight 145 g/m<sup>2</sup>. Delivered in 1 m wide rolls, at least 50 m long.
- 8) Mineral plaster mortar: ALPOL® AT 320, 321, 322, 325, 326, 327, 330, 331, 332, 336 and 338, as well as ALPOL® AT 326 WINTER. The mortar is delivered as a dry mix which should be mixed in proportion of 4.5 ÷ 5.5 I water with 25 kg of dry mix. Refer to Table 1 below for maximum grain size and indicative product yield per 1 m<sup>2</sup>.

**Table 1**



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Plaster mortar	Maximum grain size mm	Indicative yield per 1 m, kg
<i>1</i>	<i>2</i>	<i>3</i>
ALPOL® AT 320 white mineral dashed plaster	1.5	2.0
ALPOL® AT 321 white mineral pitted plaster	2.0	3.0
ALPOL® AT 322 white mineral pitted plaster	3.0	4.0
ALPOL® AT 325 ultra-white mineral pebble dash plaster	1.5	2.0
ALPOL® AT 326 ultra-white mineral pebble dash plaster	2.0	3.0
ALPOL® AT 326 WINTER ultra-white mineral pebble dash plaster	2.0	3.0
ALPOL® AT 327 ultra-white mineral pebble dash plaster	2.5	3.5
ALPOL® AT 330 grey mineral dashed plaster	1.5	2.0
ALPOL® AT 331 grey mineral pitted plaster	2.0	3.0
ALPOL® AT 332 grey mineral pitted plaster	3.0	4.0
ALPOL® AT 336 grey mineral pebble dash plaster	2.0	3.0
ALPOL® AT 338 grey mineral pebble dash plaster	3.0	4.0

- 9) Acrylic plaster compound: ALPOL® AT 350, 351, 352, 356, 357 and 358. Delivered as ready to use stained compound in colours as specified in the Manufacturer's colour chart. Refer to Table 2 below for maximum grain size and indicative product yield per 1 m<sup>2</sup>.

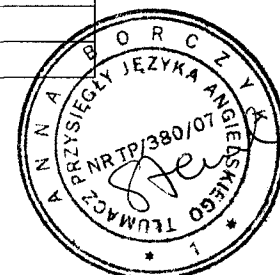
**Table 2**

Plaster compound	Maximum grain size mm	Indicative yield per 1 m <sup>2</sup> , kg
<i>1</i>	<i>2</i>	<i>3</i>
ALPOL® AT 350 acrylic dashed plaster	1.0	1.7
ALPOL® AT 351 acrylic dashed plaster	1.5	2.3
ALPOL® AT 352 acrylic dashed plaster	2.0	3.0
ALPOL® AT 356 acrylic pitted plaster	1.5	1.7
ALPOL® AT 357 acrylic pitted plaster	2.0	2.5
ALPOL® AT 358 acrylic pitted plaster	2.5	3.7

- 10) Polysilicate plaster compound: ALPOL® AT 360, 361, 362, 366, 367 and 368. Delivered as ready to use stained compound in colours as specified in the Manufacturer's colour chart. Refer to Table 3 below for maximum grain size and indicative product yield per 1 m<sup>2</sup>.

**Table 3**

Plaster compound	Maximum grain size mm	Indicative yield per 1 m <sup>2</sup> , kg
<i>1</i>	<i>2</i>	<i>3</i>
ALPOL® AT 360 polysilicate dashed plaster	1.0	1.8
ALPOL® AT 361 polysilicate dashed plaster	1.5	2.3



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ALPOL® AT 362 polysilicate dashed plaster	2.0	3.0
ALPOL® AT 366 polysilicate pitted plaster	1.5	2.3
ALPOL® AT 367 polysilicate pitted plaster	2.0	3.0
ALPOL® AT 368 polysilicate pitted plaster	2.5	3.7

- 11) Silicate-silicone plaster compound: ALPOL® AT 370, 371, 372, 376, 377 and 378. Delivered as ready to use stained compound in colours as specified in the Manufacturer's colour chart. Refer to Table 4 below for maximum grain size and indicative product yield per 1 m<sup>2</sup>.

**Table 4**

Plaster compound	Maximum grain size mm	Indicative yield per 1 m <sup>2</sup> , kg
<i>1</i>	<i>2</i>	<i>3</i>
ALPOL® AT 370 silicate-silicone dashed plaster	1.0	1.7
ALPOL® AT 371 silicate-silicone dashed plaster	1.5	2.3
ALPOL® AT 372 silicate-silicone dashed plaster	2.0	3.0
ALPOL® AT 376 silicate-silicone pitted plaster	1.5	1.7
ALPOL® AT 377 silicate-silicone pitted plaster	2.0	2.5
ALPOL® AT 378 silicate-silicone pitted plaster	2.5	3.7

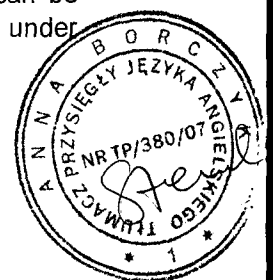
- 12) ALPOL® AF 640 acrylic facade paint for finishing acrylic and mineral plaster, delivered as ready to use preparation in colours as specified in the Manufacturer's colour chart.
- 13) ALPOL® AF 660 silicate facade paint for finishing mineral, polysilicate and silicate-silicone plaster, delivered as ready to use preparation in colours as specified in the Manufacturer's colour chart.
- 14) ALPOL® AF 680 silicone facade paint for finishing mineral plaster, delivered as ready to use preparation in colours as specified in the Manufacturer's colour chart.

ALPOL® AK 530, 531, 532 and 534 WINTER adhesive mortars, ALPOL® AG 701, 705 and 706 primers, ALPOL® AT 320, 321, 322, 325, 326, 326 WINTER, 327, 330, 331, 332, 336, 338, 350, 351, 352, 356, 357, 358, 370, 371, 372, 376, 377 and 378 plaster mortars are manufactured by Alpol Gips Sp. z o.o. in Fidor. Products having the "ALPOL®" component in their names, included in the ALPOL® EKO PLUS system may be produced by entities which have been authorised by Alpol Gips Sp. z o.o. of Fidor to use the ITB AT-15-5022/2007 Technical Approval and to mark their products with the registered trademark ALPOL®.

Refer to par. 3 for the technical specifications of the products included in the ALPOL® EKO PLUS system and of the thermal insulation courses made with the use of them.

## 2. PURPOSE, RANGE AND CONDITIONS OF APPLICATION

ALPOL® EKO PLUS thermal insulation system for external walls of buildings can be used to improve thermal insulation of walls of various material structures in buildings under construction or already in use.



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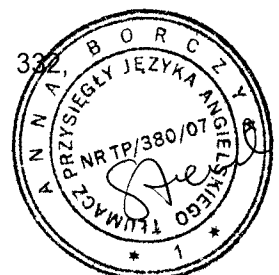
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For thermal insulation with the ALPOL® EKO PLUS system the following products should be used:

- 1) Styrofoam boards codes: EPS - EN 13163 - T2 - L2 - W2 - S2 - P3 - BS115 - CS(10)70 - DS(N)2 - DS(70,-)2 - TR100 or EPS - EN 13163 - T2 - L2 - W2 - S2 - P4 - BS125 - CS(10)80 - DS(N)2 - DS(70,-)2 - TR100 as per PN-EN 13163:2004, at least E class of reaction to fire as per PN-EN 13501-1:2004 (matching the "self-extinguishing" description, pursuant to the Ordinance of the Minister of Infrastructure of April 12, 2002, *Dziennik Ustaw / Journal of Laws/* no. 75, item 690), of the thickness according to the insulation design and, additionally, meeting the following requirements:
  - area dimensions maximum 600 x 1200 mm,
  - board surface: rough, cut from blocks,
  - board edges: straight, without damages,
- 2) fibreglass mesh (ALPOL® 145 mesh alternatively):
  - AKE 145 A mesh, as per AT-15-3833/2005, made by VERTEX a.s, Czech Republic,
  - ZALTAN® 145 mesh, as per AT-15-5803/2002, made by P.PH.U. Zaltan in Końskie,
- 3) mechanical fixtures approved for use,
- 4) special finishing material for facade parts, such as: strips, tape, corner mesh, sealing compounds and other system accessories specified by the thermal insulation design.

ALPOL® EKO PLUS insulation systems, as described below, are used on non-combustible substrates (fire reaction class at least A2 - s3, d0):

- ALPOL® EKO PLUS M variant with mineral plaster: ALPOL® AT 320, 321, 322, 325, 326, 327, 330, 331, 332, 336 or 338, thickness min. 1.5 mm, with a coat of ALPOL® AF 640 acrylic, ALPOL® AF 660 silicate or ALPOL® AF 680 silicone paint or without paint coat,
- ALPOL® EKO PLUS N variant with acrylic plaster: ALPOL® AT 350, 351, 352, 356, 357 and 358, thickness min. 1.0 mm, with a coat of ALPOL® AF 640 acrylic paint or without paint coat,
- ALPOL® EKO PLUS P variant with polysilicate plaster: ALPOL® AT 360, 361, 362, 366, 367 or 368, thickness min. 1.0 mm, with a coat of ALPOL® AF 660 silicate paint or without paint coat,
- ALPOL® EKO PLUS SIS variant with silicate-silicone plaster: ALPOL® AT 370, 371, 372, 376, 377 or 378, thickness min. 1.0 mm, with a coat of ALPOL® AF 660 silicate paint or without paint coat,
- ALPOL® EKO PLUS WINTER:
  - with mineral plaster: ALPOL® AT 326 WINTER, min. thickness 2.0 mm, with a coat of ALPOL® AF 640 acrylic paint, ALPOL® AF 660 silicate or ALPOL® AF 680 silicone paint, or without paint coat,
  - with mineral plaster: ALPOL® AT 320, 321, 322, 325, 326, 327, 330, 331, 332,



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336 or 338, min. thickness 1.5 mm, with a coat of ALPOL® AF 640 acrylic paint, ALPOL® AF 660 silicate or ALPOL® AF 680 silicone paint, or without paint coat,

- with acrylic plaster: ALPOL® AT 350, 351, 352, 356, 357 and 358, thickness min. 1.0 mm, with a coat of ALPOL® AF 640 acrylic paint or without paint coat,
- with polysilicate plaster: ALPOL® AT 360, 361, 362, 366, 367 or 368, thickness min. 1.0 mm, with a coat of ALPOL® AF 660 silicate paint or without paint coat,

and with Styrofoam boards thickness up to 250 mm, have been classified as non-fire spreading.

The application of ALPOL® EKO PLUS system products should follow the specification of the technical design for an individual facility. The design should include:

- the provisions of this Technical Approval,
- ITB instruction no. 334/2002
- applicable standards and technical and building regulations, in particular the Ordinance of the Minister of Infrastructure of April 12, 2002 on the technical conditions to be met by buildings and their siting (*Dziennik Ustaw / Journal of Laws/* no. 75 of 2002 item 690),
- the Applicant's internal directions (instructions on packages, technical data sheets and "ALPOL® EKO PLUS Application Instructions"),

and specify at least:

- the method of substrate preparation,
- thickness of Styrofoam boards,
- type, number and spacing of mechanical fixtures,
- description of finishing special points on the facade (window and door reveals, balconies, upstands, expansion joints etc.).

The Applicant hereof should ensure delivery of completed materials and components included in the ALPOL® EKO PLUS thermal insulation system to the customers, according to the material and component specifications included in the technical documentation of the buildings.

Building works related to the application of the ALPOL® EKO PLUS thermal insulation system on buildings should be carried out by specialised companies, according to the instruction of the Applicant hereof.

ALPOL® AK 534 WITNER adhesive mortar and ALPOL® AT 326 WINTER mineral plaster can be applied in temperatures from 0 °C to +25 °C. After 8 hours from application the mortars achieve frost resistance up to - 5°C.





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The application and setting temperature for the other adhesive and plaster mortars should be between +5 °C and +30 °C for mineral, from +5 °C to +25 °C for acrylic, and from +8 °C to +25 °C for the polysilicate and silicate-silicone plaster compounds.

While performing the insulation works, observe the intervals between the application of individual layers as instructed by the system Manufacturer.

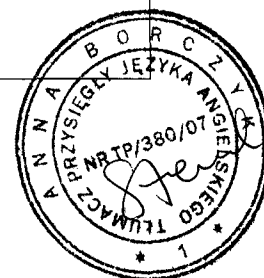
### 3. TECHNICAL PROPERTIES. REQUIREMENTS

#### 3.1. Products included in the ALPOL® EKO PLUS system

**3.1.1. ALPOL® AK 530, ALPOL® AK 531, ALPOL® AK 532 and ALPOL® AK 534 WINTER adhesive mortars.** Refer to Tables 5 and 6 below for technical properties of ALPOL® AK 530, ALPOL® AK 531, ALPOL® AK 532 and ALPOL® AK 534 WINTER adhesives.

Table 5

Item	Properties	Requirements		Testing methods
		AK 530	AK 531	
1	2	3	4	5
1	Physical appearance (supplied as)	fine powder, without caking and foreign matter		ZUAT-15/V.03/2003
2	Bulk density, g/cm <sup>3</sup>	1.5 ± 10%	1.5 ± 10%	PN-EN 1097-3:2000
3	Physical appearance (after mixing with water)	homogenous mass, without caking, contamination and water separation		PN-B-10106:1997 with Az1:2002
4*	Volume density, g/cm <sup>3</sup>	mixed in proportion (by weight) dry mix : water		PN-85/B-04500
		100:21	100:21	
		1.68 ± 10%	1.53 ± 10%	
5*	Consistency, cm	8.5 ± 1.0	9.0 ± 1.0	PN-85/B-04500
6	Ignition loss at 450°C, %	1.59 ± 10%	1.79 ± 10%	ZUAT-15/V.03/2003
7*	Flow resistance on vertical surface	no flow		see 5.6.2
8	Resistance to shrinkage cracks at up to 5 mm depth	no cracks		ZUAT-15/V.03/2003
9	Adhesion, MPa: a) to concrete: - when air-dry - after 24 h immersion in water - after 5 thermal and moisture cycles	≥ 0.30 ≥ 0.20 ≥ 0.30		ZUAT-15/V.03/2003



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b) to Styrofoam: - when air-dry - after 24 h immersion in water - after 5 thermal and moisture cycles	$\geq 0.10$ $\geq 0.10$ $\geq 0.10$	ZUAT- 15/V.03/2003
* property specified in the approval procedure, not included in the initial type tests and finished product tests		

**Table 6**

Item	Properties	Requirements		Testing methods
		AK 532	AK 534 WINTER	
1	2	3	4	5
1	Physical appearance (supplied as)	fine powder, without caking and foreign matter		ZUAT-15/V.03/2003
2	Bulk density, g/cm <sup>3</sup>	1.5 ± 10%	1.38 ± 10%	PN-EN 1097-3:2000
3	Physical appearance (after mixing with water)	homogenous mass, without caking, contamination and water separation		PN-B-10106:1997 with Az1:2002
4*	Volume density, g/cm <sup>3</sup>	mixed in proportion (by weight) dry mix : water		PN-85/B-04500
		100:23	100:21	
		1.60 ± 10%	1.55 ± 10%	
5*	Consistency, cm	8.5 ± 1.0	10 ± 1.0	PN-85/B-04500
6	Ignition loss at 450°C, %	1.84 ± 10%	2.14 ± 10%	ZUAT-15/V.03/2003
7*	Flow resistance on vertical surface	no flow	-	see 5.6.2
8	Resistance to shrinkage cracks at up to 5 mm depth	no cracks		ZUAT-15/V.03/2003
9	Adhesion, MPa: a) to concrete: - when air-dry - after 24 h immersion in water - after 5 thermal and moisture cycles	$\geq 0.30$	$\geq 0.20$ $\geq 0.30$	ZUAT-15/V.03/2003
	b) to Styrofoam: - when air-dry - after 24 h immersion in water - after 5 thermal and moisture cycles	$\geq 0.10$	$\geq 0.10$ $\geq 0.10$	ZUAT-15/V.03/2003



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\* property specified in the approval procedure, not included in the initial type tests and finished product tests

**3.1.2. ALPOL® AG 701, ALPOL® AG 705 and ALPOL® AG 706 primers.**

Refer to Table 7 below for technical properties of ALPOL® AG 701, ALPOL® AG 705 and ALPOL® AG 706 primers.

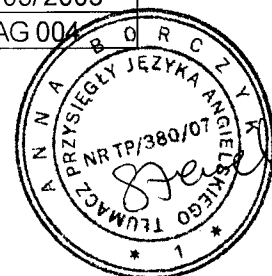
**Table 7**

Item	Properties	Requirements			Testing methods
		701	705	706	
1	2	3	4	5	6
1	Volume density, g/cm <sup>3</sup>	1.60 ± 10%	1.47 ± 10%	1.45 ± 10%	PN-82/C-81551
2	Dry mass content, %	67.11 ± 3.3	55.66 ± 2.8	53.67 ± 2.7	ZUAT-15/V.03/2003
3	Ignition loss, %: - at 450°C - at 900°C	39.20 ± 3.9 65.43 ± 6.5	51.18 ± 5.1 71.89 ± 7.1	51.83 ± 5.1 62.33 ± 6.2	ZUAT-15/V.03/2003

**3.1.3. ALPOL® 145 fibreglass mesh.** Refer to Table 8 below for technical properties of ALPOL® 145 fibreglass mesh.

**Table 8**

Item	Properties	Requirements	Testing methods
1	2	3	4
1	Weave type:	gauze	ZUAT-15/V.03/2003
2	Length, m	≥ 50	ZUAT-15/V.03/2003
3	Width, m	1 ± 5%	ZUAT-15/V.03/2003
4	Mesh size, mm	4.5 x 5.0 ± 10%	ZUAT-15/V.03/2003
5	Surface mass, g/m <sup>2</sup>	150 ± 5	ZUAT-15/V.03/2003
6	Ignition loss at 625°C, %	17.7 ± 5	ZUAT-15/V.03/2003
7	Breaking force after ageing, N/mm	≥ 20	ETAG 004



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8	Breaking strength after ageing, % of sample strength as delivered	≥ 50	ETAG 004
9*	Relative elongation at rupture after ageing, %	≤ 2.0	ETAG 004

\* property specified in the approval procedure, not included in the initial type tests and finished product tests

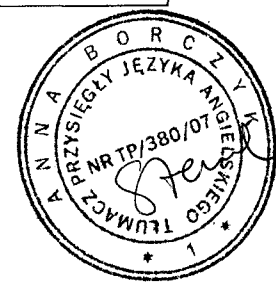
**3.1.4. ALPOL® AT plaster mortar: 320, 321, 322, 325, 326, 327, 330, 331, 332, 336, 338 and 326 WINTER.** Technical properties of ALPOL® AT plaster mortars: 320, 321 and 322 are specified in Table 9, of ALPOL® AT: 325, 326 and 327 are specified in Table 10, of ALPOL® AT: 330, 331 and 332 – in Table 11, and of ALPOL® AT: 336, 338 and 326 WINTER – in Table 12.

**Table 9**

Item	Properties	Requirements			Testing methods
		AT 320	AT 321	AT 322	
1	2	3	4	5	6
1	Physical appearance	dry, homogeneous mix without caking and foreign matter			PN-B-10106:1997 with Az1:2002
2	Volume density, g/cm <sup>3</sup>	1.80 ± 10%	1.85 ± 10%		PN-85/B-04500
3	Consistency, cm	10.0 ± 1.0			PN-85/B-04500
4	Ignition loss at 450°C, %	0.77 ± 0.08	0.59 ± 0.06	0.80 ± 0.08	ZUAT-15/V.03/2003
5	Resistance to shrinkage cracks	no cracking in plaster layer thickness equal the grain thickness, as specified in Table 1			ZUAT-15/V.03/2003

**Table 10**

Item	Properties	Requirements			Testing methods
		AT 325	AT 326	AT 327	
1	2	3	4	5	6
1	Physical appearance	dry, homogeneous mix without caking and foreign matter			PN-B-10106:1997 with Az1:2002
2	Volume density, g/cm <sup>3</sup>	1.88 ± 10%			PN-85/B-04500
3	Consistency, cm	10.0 ± 1.0			PN-85/B-04500
4	Ignition loss at 450°C, %	0.68 ± 0.07	0.68 ± 0.07	0.60 ± 0.06	ZUAT-15/V.03/2003
5	Resistance to shrinkage cracks	no cracking in plaster layer thickness equal the grain thickness, as specified in Table 1			ZUAT-15/V.03/2003



**Table 11**

Item	Properties	Requirements			Testing methods
		AT 330	AT 331	AT 332	
1	2	3	4	5	6
1	Physical appearance	dry, homogeneous mix without caking and foreign matter			PN-B-10106:1997 with Az1:2002
2	Volume density, g/cm <sup>3</sup>	1.71 ± 10%	1.69 ± 10%		PN-85/B-04500
3	Consistency, cm	10.0 ± 1.0			PN-85/B-04500
4	Ignition loss at 450°C, %	0.90 ± 0.09	0.91 ± 0.09	0.90 ± 0.09	ZUAT-15/V.03/2003
5	Resistance to shrinkage cracks	no cracking in plaster layer thickness equal the grain thickness, as specified in Table 1			ZUAT-15/V.03/2003

**Table 12**

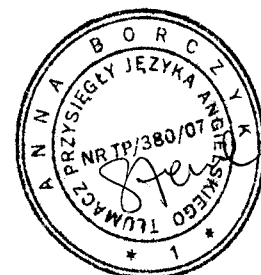
Item	Properties	Requirements			Testing methods
		AT 336	AT 338	AT 326 WINTER	
1	2	3	4	5	6
1	Physical appearance	dry, homogeneous mix without caking and foreign matter			PN-B-10106:1997 with Az1:2002
2	Bulk density, g/cm <sup>3</sup>	-	-	1.45 ± 10%	PN-EN 1097-3:2000
3	Volume density, g/cm <sup>3</sup>	1.5 ± 10%	1.5 ± 10%	1.79 ± 10%	PN-85/B-04500
4	Consistency, cm	10.0 ± 1.0		9.5 ± 1.0	PN-85/B-04500
5	Ignition loss at 450°C, %	0.60 ± 0.06	0.60 ± 0.06	0.46 ± 0.05	ZUAT-15/V.03/2003
6	Resistance to shrinkage cracks	no cracking in plaster layer thickness equal the grain thickness, as specified in Table 1			ZUAT-15/V.03/2003

**3.1.5. ALPOL® AT acrylic plaster compounds: 350, 351, 352, 356, 357 and 358.**

Technical properties of ALPOL® AT 350, 351, 352, 356, 357 and 358 plaster are specified in Table 13.

**Table 13**

Item	Properties	Requirements	Testing methods
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		AT 350	AT 351 and AT 352	AT 356, AT 357 and AT 358	
1	2	3	4	5	6
1	Physical appearance	homogenous mix without caking and foreign matter			see 5.6.1
2	Volume density, g/cm <sup>3</sup>	1.89 ± 10%	1.87 ± 10%	1.88 ± 10%	PN-85/B-04500
3	Consistency, cm	10.5 ± 1.0	11.0 ± 1.0	10.5 ± 1.0	PN-85/B-04500
4	Dry mass content %	85.10 ± 4.3	85.53 ± 4.3	84.0 ± 4.2	ZUAT-15/V.03/2003
5	Ignition loss, %: - at 450°C - at 900°C	21.16 ± 2.1 54.68 ± 5.5	20.78 ± 2.1 53.14 ± 5.3	22.17 ± 2.2 50.99 ± 5.1	ZUAT-15/V.03/2003
6	Resistance to shrinkage cracks	no cracking in plaster layer thickness equal the grain thickness, as specified in Table 2			ZUAT-15/V.03/2003

**3.1.6. ALPOL® AT polysilicate plaster compounds: 360, 361, 362, 366, 367 and 368.**

Technical properties of ALPOL® AT 360, 361, 362, 366, 367 and 368 plaster compounds are specified in Table 14.

**Table 14**

Item	Properties	Requirements			Testing methods
		AT 360	AT 361 and AT 362	AT 366, AT 367 and AT 368	
1	2	3	4	5	6
1	Physical appearance	homogenous mix without caking and foreign matter			PN-B-10106:1997 with Az1:2002
2	Volume density, g/cm <sup>3</sup>	1.97 ± 10%	1.94 ± 10%	1.96 ± 10%	PN-85/B-04500
3	Consistency, cm	10.5 ± 1.0	9.5 ± 1.0	10.0 ± 1.0	PN-85/B-04500
4	Dry mass content, %	85.33 ± 4.3	85.20 ± 4.3	83.25 ± 4.2	ZUAT-15/V.03/2003
5	Ignition loss, %: - at 450°C - at 900°C	20.93 ± 2.1 54.47 ± 5.5	18.37 ± 1.8 50.30 ± 5.0	20.50 ± 2.0 51.06 ± 5.1	ZUAT-15/V.03/2003
6	Resistance to shrinkage cracks	no cracking in plaster layer thickness equal the grain thickness, as specified in Table 3			ZUAT-15/V.03/2003



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**3.1.7. ALPOL® AT silicate-silicone plaster compounds: 370, 371, 372, 376, 377 and 378.** Technical properties of ALPOL® AT 370, 371, 372, 376, 377 and 378 silicate-silicone plaster compounds are specified in Table 15.

**Table 15**

Item	Properties	Requirements			Testing methods
		AT 370	AT 371 and AT 372	AT 376, AT 377 and AT 378	
1	2	3	4	5	6
1	Physical appearance	homogenous mix without caking and foreign matter			PN-B-10106:1997 with Az1:2002
2	Volume density, g/cm <sup>3</sup>	1.65 ± 10%	1.93 ± 10%	1.74 ± 10%	PN-85/B-04500
3	Consistency, cm	12.5 ± 1.0	11.0 ± 1.0	10.5 ± 1.0	PN-85/B-04500
4	Dry mass content %	82.32 ± 4.1	84.79 ± 4.3	77.87 ± 3.9	ZUAT-15/V.03/2003
5	Ignition loss, %: - at 450°C - at 900°C	23.63 ± 2.4 45.91 ± 4.6	21.04 ± 2.0 44.00 ± 4.4	26.35 ± 2.6 56.13 ± 5.6	ZUAT-15/V.03/2003
6	Resistance to shrinkage cracks	no cracking in plaster layer thickness equal the grain thickness, as specified in Table 4			ZUAT-15A.03/2003

**3.1.8. ALPOL® AF 640, AF 660 and AF 680 facade paint.** ALPOL® AF 640, AF 660 and AF 680 facade paint should comply with PN-C-81913:1998. In addition, the paint should comply with the requirements specified in Table 16.

**Table 16**

Item	Properties	Requirements			Testing methods
		AF640	AF660	AF680	
1	2	3	4	5	6
1	Physical appearance	homogenous liquid colour acc. to the manufacturer's chart			see 5.6.1
2	Volume density, g/cm <sup>3</sup>	1.59 ± 5%	1.55 ± 5%	1.52 ± 5%	PN-EN ISO 2811-1:2002
3	Dry mass content %	67.34 ± 3.4	61.45 ± 3.1	60.4 ± 3.0	ZUAT-15/V.03/2003
4	Ignition loss, % at 450°C, at 900°C	46.73 ± 4.7 52.34	45.65 ± 4.6 53.16	50.33 ± 5.0 54.32	ZUAT-15/V.03/2003



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	± 5.2	± 5.3	± 5.4
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### 3.2. ALPOL® EKO PLUS thermal insulation systems

The required technical properties of ALPOL® EKO PLUS systems are specified in Tables 17 and 18.

**Table 17**

Item	Properties	Requirements				Testing methods
		ALPOL® EKO PLUS variant				
		M	P	N	SIS	
1	2	3	4	5	6	7
1	Water absorption, g/m <sup>2</sup> , tested on samples: - after 10 h immersion in water - after 24 h immersion in water	≤ 600 ≤ 1000				ZUAT-15/V.03/2003
2	Frost resistance	no changes should be visible in the samples tested				ZUAT-15/V.03/2003
3	Ageing resistance	no changes should be visible in the plaster sample colour tested				ZUAT-15/V.03/2003
4	Adhesion between layers, MPa, tested on samples: - in dry-air state - subjected to frost resistance cycling	≥ 0.1 ≥ 0.1				ZUAT-15/V.03/2003
5	Impact resistance, J, tested on samples: - in dry-air state - subjected to frost ageing cycling	≥ 1 ≥ 1		≥ 3 ≥ 3	≥ 1 ≥ 1	ZUAT-15/V.03/2003
6	Relative diffusion resistance (reinforced layer + primer + plaster and paint if any), m	≤ 2				PN-97/B-10106
7*	Fire classification as regards fire spreading through walls	non-fire spreading; thermal insulation systems with 25 cm thick Styrofoam boards, with plaster finish type:				PN-90/B-02867
		mineral, 1.5 mm thick	polysilicate , 1.0 mm thick	acrylic, 1.0 mm thick	silicate- silicone, 1.0 mm thick	





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	and paint coat	
* The classification applicable to systems used on non-combustible substrates (at least A2 - s3, d0 fire reaction class as per PN-EN 13501-1:2004)		

**Table 18**

Item	Properties	Requirements			Testing methods
		ALPOL® EKO PLUS WINTER with plaster type:			
		mineral	polysilicate	acrylic	
1	2	3	4	5	6
1	Water absorption, g/m <sup>2</sup> , tested on samples: - after 10 h immersion in water - after 24 h immersion in water	≤ 600 ≤ 1000			ZUAT-15/V.03/20 03
2	Frost resistance	no changes should be visible in the samples tested			ZUAT-15/V.03/20 03
3	Ageing resistance	no changes should be visible in the plaster sample colour tested			ZUAT-15/V.03/20 03
4	Adhesion between layers, MPa, tested on samples: - in dry-air state - subjected to frost resistance cycling	≥ 0.1 ≥ 0.1			ZUAT-15/V.03/200 3
5	Impact resistance, J, tested on samples: - in dry-air state - subjected to frost ageing cycling	≥ 1 ≥ 1		≥ 3 ≥ 3	ZUAT-15/V.03/20 03
6	Relative diffusion resistance (reinforced layer + primer + plaster and paint, if any), m	≤ 2			PN-97/B-10106
7*	Fire classification as regards fire spreading through walls	non-fire spreading; thermal insulation systems with 25 cm thick Styrofoam boards, with plaster finish type:			PN-90/B-02867
		mineral, 1.5 mm thick	polysilicate, 1.0 mm thick	acrylic, 1.0 mm thick	
		and paint coat			

\* The classification applicable to systems used on non-combustible substrates (at least A2 - s3, d0 fire reaction class as per PN-EN 13501-1:2004)



#### 4. PACKAGING, STORAGE AND TRANSPORT

Products of the ALPOL® EKO PLUS system should be delivered in their original packages, stored and transported according to the manufacturers' instructions.

For each product, the manufacturer is obliged to attach information containing at least the following:

- manufacturer's name and address,
- product identification including its name,
- ITB AT-15-5022/2007 Technical Approval number,
- number and date of the national declaration of conformity,
- shelf life if specified,
- net weight if specified,
- basic conditions of use,
- name of certification unit involved in the conformity tests,
- marking required by the Ordinance of the Minister of Health of July 3, 2002 on the material safety data sheets (*Dziennik Ustaw / Journal of Laws/ 140/2002, item 1171*).
- building mark.

Application method of the building mark should comply with the Ordinance of the Minister of Infrastructure dated August 11, 2004 on the methods of declaring conformity of building products and marking them with the building mark (*Dziennik Ustaw / Journal of Laws/ 198/2005, item 2041*).

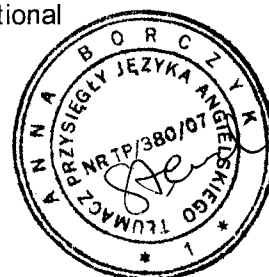
#### 5. VERIFICATION OF CONFORMITY

##### 5.1. General principles

Pursuant to Art. 4, Art. 5 par. 1 item 3 and Art. 8 par. 1 of the Law of April 16, 2004 on building products (*Dziennik Ustaw / Journal of Laws/ no. 92/2005, item 881*), the set of products referred to in this Technical Approval may be launched on the market and used for building works within the scope related to their properties and designation, provided that the manufacturer has verified conformity, issued a national declaration of conformity in accordance with the ITB AT-15-5022/2007 Technical Approval and marked the product with the building mark pursuant to the applicable regulations.

Pursuant to the Ordinance of the Minister of Infrastructure dated August 11, 2004 on the methods of declaring conformity of building products and marking them with the building mark (*Dziennik Ustaw / Journal of Laws/ 198/2005, item 2041*), the conformity of the insulation system for external building walls ALPOL® EKO PLUS, referred to in this ITB AT-15-5022/2007 Technical Approval, shall be verified by the manufacturer using the 2+ system.

Using the 2+ conformity verification system, the manufacturer may issue a national declaration of conformity with the ITB AT-15-5022/2007 Technical Approval based on:



a) the manufacturer's task:

- initial market research,
- on-site production control,
- finished product testing (samples) in the production facility, carried out by the manufacturer, according to the testing plan adopted, including tests as referred to under clause 5.4.3,

b) accredited unit's duties:

- certification of the on-site production control based on: initial inspection of the production plant and on-site production and continuous supervision, evaluation and acceptance of the on-site production control.

### **5.2. Initial type test**

The initial type test is an examination which confirms the required technical utility properties and usability, performed before launching the product on the market and use.

Initial type testing of the ALPOL<sup>®</sup> EKO PLUS insulation system variants M, N, P, SIS and WINTER includes the following areas:

- water absorption,
- frost resistance,
- ageing resistance,
- adhesion between layers,
- impact resistance,
- relative diffusion resistance,
- fire classification as regards fire spreading through walls.

Tests which were, during the approval procedure, the basis for establishing technical properties and product usability, constitute the initial type test for the verification of conformity.

### **5.3. On-site production control**

On-site production control includes:

1. the specification and verification of components,
2. verification and tests of the manufacturing process and testing finished products (clause 5.4.2), carried out by the manufacturer in accordance with the agreed testing plan and following the principles and procedures set out in the on-site production control documentation, adapted to the production technology and oriented to obtain products of required properties.

The production control shall ensure that the product is in compliance with the ITB AT-15-5022/2007 Technical Approval. The results of such verification should be regularly recorded. Entries of such a record should confirm compliance of the products involved with



the verification criteria. Each batch of products should be unambiguously identified in the testing record.

#### **5.4. Testing finished products**

##### **5.4.1. Testing plan.** The testing plan includes the following:

- ongoing tests,
- periodic tests.

##### **5.4.2. Ongoing tests.** The ongoing tests include checking the following:

- ALPOL®: AK 530, 531, 532 and 534 WINTER adhesive mortars as regards:
  - physical appearance,
  - bulk density,
- ALPOL® AG 701, 705 and 706 primers as regards:
  - volume density,
- ALPOL® fibreglass mesh as regards:
  - mesh size,
  - mesh dimensions,
  - surface mass,
- mineral plaster mortars: ALPOL® AT 320, 321, 322, 325, 326, 327, 330, 331, 332, 336 and 338, as regards:
  - physical appearance,
  - volume density,
  - consistency,
- ALPOL® AT 326 WINTER mineral plaster as regards:
  - physical appearance,
  - bulk density.
- ALPOL® AT plaster coating: 350, 351, 352, 356, 357, 358, 360, 361, 362, 366, 367, 368, 370, 371, 372, 376, 377 and 378 as regards:
  - physical appearance,
  - volume density,
  - consistency.
- ALPOL® AF 640, AF 660 and AF 680 paints as regards:
  - physical appearance,
  - bulk density.

##### **5.4.3. Periodic tests.** The periodic tests include checking the following:



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- ALPOL®: AK 530, 531, 532 and 534 WINTER adhesive mortars as regards:
  - resistance to shrinkage cracking,
  - adhesion to concrete and Styrofoam,
- ALPOL® AG 701, 705 and 706 primers as regards:
  - dry mass content,
  - ignition loss,
- ALPOL® fibreglass mesh as regards:
  - ignition loss,
  - breaking strength after ageing,
- plaster mortars: ALPOL® AT 320, 321, 322, 325, 326, 327, 330, 331, 332, 336, 338 and 326 WINTER, as regards:
  - ignition loss,
  - resistance to shrinkage cracking,
- ALPOL® AT plaster coating: 350, 351, 352, 356, 357, 358, 360, 361, 362, 366, 367, 368, 370, 371, 372, 376, 377 and 378 as regards:
  - dry mass content,
  - ignition loss,
  - resistance to shrinkage cracking,
- ALPOL® AF 640, AF 660 and AF 680 paints as regards:
  - dry mass content,
  - ignition loss.
- ALPOL® EKO PLUS variants M, N, P, SIS and WINTER as regards fire spreading through walls.

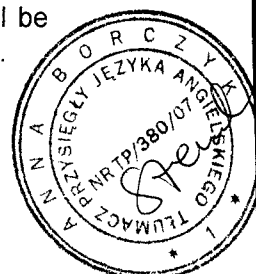
### 5.5. Testing intervals

The ongoing tests should be carried out in accordance with an agreed testing plan, at least once per each batch of products. The product batch size should be specified in the on-site production control documentation.

The periodic tests should be performed at least every 3 years.

### 5.6. Testing methods

For tests, the methods specified in documents referred to in Tables 5 ÷ 19 shall be adopted. The results shall be verified against the requirements specified in Tables 4 ÷ 16.



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**5.6.1. Verifying the physical appearance.** The physical appearance shall be checked visually with a naked eye, in natural lighting from the distance of 0.5 m.

**5.6.2. Verifying adhesive flow resistance on a vertical surface.** Apply approx. 1 cm thick coat of adhesive mortar with a steel float on a concrete slab dimensioned 50 x 25 x 4 cm and mark its outline. Position the slab vertically, in laboratory conditions (temperature  $20 \pm 2^\circ\text{C}$  and relative air humidity  $65 \pm 5\%$ ) and observe it until the mortar has set, to see if it flows down of the slab.

**5.7. Sample collection for tests**

Samples for tests shall be taken acc. to PN-83/N-03010.

**5.8. Assessing test results**

The manufactured products and completed sets of products shall be regarded compliant with the requirements hereof if all test results are positive.

**6. FORMAL AND LEGAL PROVISIONS**

**6.1.** This ITB Technical Approval supersedes the ITB AT-15- 5022/2007 Technical Approval of January 2007.

**6.2.** The AT-15-5022/2007 Technical Approval is a document which confirms usability of ALPOL® EKO PLUS for external wall thermal insulation applications in the building industry, within the scope resulting from this Approval.

Pursuant to Art. 4, Art. 5 par. 1 item 3 and Art. 8 par. 1 of the Law of April 16, 2004 on building products (*Dziennik Ustaw /Journal of Laws/* no. 92/2005, item 881), the set of products referred to in this Technical Approval may be launched on the market and used for building works within the scope related to their properties and designation, provided that the manufacturer has verified conformity, issued a national declaration of conformity in accordance with the ITB AT-15-5022/2007 Technical Approval and marked the products with the building mark pursuant to the applicable regulations.

**6.3.** The Technical Approval does not violate the rights resulting from the regulations on the protection of industrial property, in particular the announcement of the Speaker of Sejm dated June 13, 2003 on the consolidated text of the Law of June 30, 2000, Industrial property law (*Dziennik Ustaw /Journal of Laws/* no. 119, item 1117). Compliance with such law is the duty of the users of this Technical Approval.

**6.4.** By issuance of the Technical Approval, the Building Research Institute accepts no responsibility for any possible violation of exclusive or acquired rights.

**6.5.** The ITB Technical Approval shall not relieve the manufacturers of products included in the ALPOL® EKO PLUS external wall thermal insulation system of responsibility for the proper quality of such materials, neither shall it relieve the contractors of building



works of responsibility for the proper use and application of the solution hereof.

**6.6.** Information of the issuance of the ITB AT-15-5022/2007 Technical Approval for the solution referred to herein shall be included in catalogues and advertisements or other documents published in connection with the products included in the ALPOL® EKO PLUS external wall thermal insulation system.

## 7. VALIDITY

The ITB AT-15-5022/2007 Technical Approval is valid till May 25, 2012.

Validity of the ITB Technical Approval may be extended for subsequent periods, provided that the Applicant thereof or his formal successor submits the relevant application to the Building Research Institute, at least 3 months before the expiry date of this document.

**THE END**

## ADDITIONAL INFORMATION

### Standards and related documents

PN-90/B-02867	<i>Fire protection of buildings. Method for examination of the degree of fire spreading through walls.</i>
PN-85/B-04500	<i>Building mortars. Examination of physical properties and strength.</i>
PN-B-10106:1997	<i>Building mortars and plaster. Plaster mortar for thin-coat finish.</i>
and Az 1:2002	
PN-82/C-81551	<i>Determining density of varnish products and graphic paints.</i>
PN-C-81913:1998	<i>Dispersion paints for building facades.</i>
PN-EN 1097-3:2000	<i>Examination of mechanical and chemical properties of aggregates.</i>
PN-EN 13163:2004	<i>Thermal insulation products for buildings. Factory made Styrofoam (SF) products. Specifications</i>
PN-EN 13501-1:2004	<i>Fire classification of construction.</i> <i>Part 1: Classification using test data from reaction to fire.</i>
PN-83/N-03010	<i>Statistical quality control. Randomised selection of samples.</i>
ZUAT- 15/V.03/2003	<i>Thermal insulation systems based on Styrofoam as the insulation material and thin-layer elevation finish</i>
ETAG-004/2000	<i>Complex thermal insulation systems with plaster finish</i>



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ITB Instruction 334/2002	<i>Jointless thermal insulation system for external walls of buildings</i>
AT-15-5803/2002	<i>ZALTAN<sup>®</sup> 145 fibreglass mesh</i>
AT-15-3833/2005	<i>VERTEX 145A/AKE 145A fibreglass mesh</i>

**Reports, test reports, classifications and evaluations**

1. Expert opinion no. NT-2/BN/413/07, Department of Modern Finishing Techniques ITB, Warsaw 2007
2. Selected laboratory tests of ALPOL AK 532 and ALOPL [*misspelt name; correct: ALPOL*] AK 533 adhesives, NT-518/A/07, Department of Modern Finishing Techniques ITB, Warsaw 2007
3. Laboratory test of ALPOL EKO PLUS and ALOPL [*misspelt name; correct: ALPOL*] EKO PLUS WM silicate-silicone plaster for approval purposes, NT-527/A/06, Department of Modern Finishing Techniques ITB, Warsaw 2007
4. Laboratory tests of ALPOL<sup>®</sup> AK 534 WINTER adhesive, ALPOL<sup>®</sup> plaster and ALPOL<sup>®</sup> EKO PLUS Winter and ALPOL<sup>®</sup> EKO PLUS WM Winter thermal insulation system for approval purposes.

Part I - ALPOL<sup>®</sup> AK 534 WINTER adhesive tests, as regards the use for bonding thermal insulation boards.

Part II – Tests of ALPOL<sup>®</sup> AT 350 and ALPOL<sup>®</sup> AT 360 plaster used with ALPOL<sup>®</sup> EKO PLUS N and ALPOL<sup>®</sup> EKO PLUS WM thermal insulation systems,

Part III – Tests of ALPOL<sup>®</sup> EKO PLUS Winter and ALPOL<sup>®</sup> EKO PLUS WM Winter thermal insulation systems.

NT-608/A/06, Department of Modern Finishing Techniques ITB, Warsaw 2006.

5. Laboratory tests of products included in the ALPOL EKO PLUS thermal insulation system - for certification and approval purposes. Part I – Tests results of ZALTAN mesh for the ALPOL EKO PLUS system. Part III – Tests of ALPOL paints: AF 640, AF 660, AF 680 for the ALPOL EKO PLUS system, NT-592/A/05, Department of Modern Finishing Techniques ITB, Warsaw 2005.
6. Expert opinion no. NT-3/BN/580/05 dated May 13, 2005, Department of Modern Finishing Techniques ITB, Warsaw 2005.
7. Test report no. LT-308/05/2, Testing Laboratory for Finishing Materials ITB, Warsaw 2005.
8. Laboratory tests for thermal insulation systems of ALPOL, for periodic examination purposes, NT-591/A/05, Department of Modern Finishing Techniques ITB, Warsaw 2005.
9. Laboratory tests of AT 338 plaster and AK 532 adhesive of the ALPOL EKO PLUS system – for approval purposes, NT-647/A/04, Department of Modern Finishing Techniques ITB, Warsaw 2005.





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10. Determining ignition loss for 5 ALPOL mineral plaster types, NT-691/C/04, Department of Modern Finishing Techniques ITB, Warsaw 2005.
11. Test report no. LT-814/04/1, Testing Laboratory for Finishing Materials ITB, Warsaw 2004.
12. Selected laboratory tests of ALPOL AK 530, AK 531, AK 532 adhesives for verification and certification purposes, NT- 568/A/04, Department of Modern Finishing Techniques ITB, Warsaw 2004.
13. Laboratory test of ALPOL EKO PLUS M system products for approval and certification purposes, NT-769/00, Department of Modern Finishing Techniques ITB, Warsaw 2001.
14. Laboratory tests of ALPOL EKO PLUS N and ALPOL EKO PLUS P insulation systems, for approval and certification purposes, NT-551/02, Department of Modern Finishing Techniques ITB, Warsaw 2002.
15. Test reports LT-516/01/1 and LT-516/01/2, Department of Modern Finishing Techniques ITB, Warsaw 2001.
16. Laboratory tests of KABE THERM thermal insulation system – for the needs of periodic and approval examination NT-531/01, Department of Modern Finishing Techniques ITB, Warsaw 2001.
17. Fire classification as regards fire spreading through walls with the fire action on the elevation side. NP-620.1/07/KP, Fire Tests Department ITB, Warsaw, 2007.
18. Fire classification as regards fire spreading through walls with the fire action on the elevation side. NP-1359.1/06/TG (extended by NP-803.3/06/TG), Fire Tests Department ITB, Warsaw, 2006.
19. Fire classification as regards fire spreading through walls with the fire action on the elevation side. NP-803.1/06/TG, Fire Tests Department ITB, Warsaw, 2006.
20. Fire classification as regards fire spreading through walls with the fire action on the elevation side. NP-803.2/06/TG, Fire Tests Department ITB, Warsaw, 2006.
21. Fire classification as regards fire spreading through walls with the fire action on the elevation side. NP-803.3/06/TG, Fire Tests Department ITB, Warsaw, 2006.
22. Fire classification as regards fire spreading through walls NP-1115/00/TG, Fire Tests Department ITB, Warsaw, 2001.
23. Fire classification as regards fire spreading through walls NP-1110/02/TG, Fire Tests Department ITB, Warsaw, 2003.
24. Fire classification as regards fire spreading through walls with the fire action from the outside. NP-596.1/05/TG, NP-596.2/05/TG and NP-596.3/05/TG, Fire Tests Department ITB, Warsaw, 2005.

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I, the undersigned Anna Stencel, a certified translator and interpreter of English, hereby certify that this is a true and faithful translation of the original Polish document presented to me. (Translator's surname changed as per the marriage certificate no. 3060/2007, Register Office in Poznań.)

Poznań, this 20<sup>th</sup> December 2007; pages: 38.

Repertory No. 182/2007

Fee charged pursuant to the Ordinance of the Minister of Justice dated 24 January 2005

(Dz. U. No. 15/2005, item 131)

