# AMMAK

# KERA AWAK Sp. z o.o.

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KERA AWAK - Lighten up your success story www.awak.pl



SMOKE VENTS
SKYLIGHTS
ROOF HATCHES
CONTINUOUS ROOFLIGHTS

Table of contents	page
About us	3-4
Our history	5-6
Company figures	7-8
Our assets	9-16
Our offer	17-18
Smoke vents	19-20
Single leaf smoke vents	21-22
Double leaf smoke vents	23-24
Roof skylights	25-26
Fixed skylights	27-28
Skylights with ventilation function	29-30
Roof hatches	31-34
Continuous rooflights	35-38
Our projects	39-42

KERA AWAK - About us www.awak.pl

# **About us**

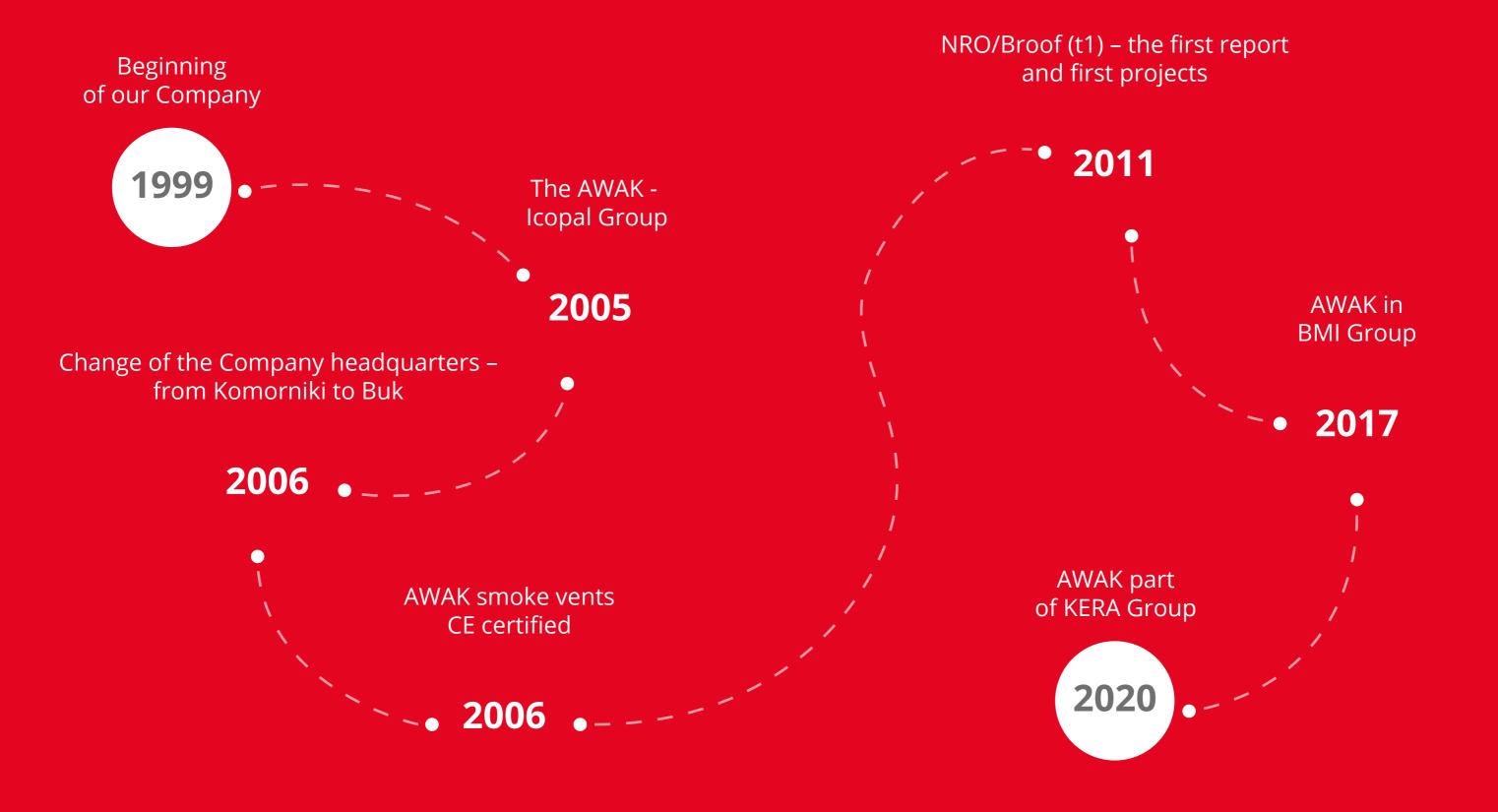
The company AWAK has been operating on the market since 1999. At that time, AWAK has become an expert at production of smoke vents and dome skylights. In June 2005, AWAK signed with ICOPAL SA a mutual cooperation corporate agreement. Since that moment, AWAK has been operating within the international concern of ICOPAL. In 2017, as a result of the merger of ICOPAL and BRAAS MONIER, it became part of the BMI Group, Europe's largest manufacturer of roofing solutions for both pitched and flat roofs.

In September 2020, AWAK became part of the Finnish capital group KERA GROUP OY. KERA GROUP is a family company with 50 years of tradition in manufacturing and distribution of solutions for daylight and smoke control. It is also a leader on the Scandinavian market in production of roofing, terrace glazing, and winter gardens. By investing in technologies since 1971, it has ensured itself development resulting in its presence in nine European countries. The companies of KERA group are located in Finland, Norway, Sweden, Denmark, Lithuania, Latvia, Estonia, and Russia. For many years, the AWAK brand has been present on the Ukrainian, Romanian, Hungarian, and Balkan markets.



KERA AWAK - Our history \_\_\_\_\_\_ www.awak.pl

# **Our history**



KERA AWAK - Company figures www.awak.pl



Over 125 000 m2

The surface covered with our products in the last 3 years



*Over* 11 000

Number of offers prepared for our customers yearly



Nearly 3 000

Number of smoke vents manufactured in 2020

**Company figures** 

 $^{\prime}$ 



- Support of industry experts
- Quick quotations and swift implementation
- Modern machine park for processing metals, aluminium profiles, and plastic
- Efficient communication when it comes to product, assembly, and implementation changes

KERA AWAK - We support the design activities www.awak.pl



KERA AWAK - We build relationships www.awak.pl



KERA AWAK - We take care of logistics www.awak.pl

# We take care of logistics

- Experienced team of experts the total experience of our team accounts for almost 100 years in the industry
- Cooperation with the best shipping companies in Poland

# **Efficient logistics**

Owing to the fact that all elements of our rooflights and smoke vents are produced in Poland, we can efficiently manage the logistics of our deliveries. Additionally, a warehouse dedicated for completion of goods guarantees convenient loading.

KERA AWAK - Our offer www.awak.pl

# Our offer



#### NATURAL LIGHTING

Roof skylights and continuous rooflights are used in facilities where we wish to make the most of natural daylight. Compared to traditional windows mounted in the facade, they let in more daylight providing more efficient lighting of a particular facility.



#### **VENTILATION**

A skylight combined with a gravity vent will be just perfect offering the function of swift ventilation of rooms when needed. This function provides good air circulation in the room in which such skylights are installed and, in addition, it does not disturb the quiet.



#### SMOKE EXTRACTION

The purpose of smoke vents is to extract the combustion by-products like smoke and toxic fumes from facilities where the fire occurs. The extraction of smoke and exhaust fumes facilitates the firefighting and rescue operation, and above all, the evacuation of people staying there. Fast detection of fire, efficient firefighting and rescue action, as well as extracting the smoke through the vents reduces the losses in both equipment and to the entire structure of the building.



#### COMMUNICATION

The construction of a skylight combined with a roof hatch joins two functionalities. The first one is to illuminate the room, and the second one is to provide the roof access. The skylight with the roof hatch function provides an easy and safe access to the building's roof. A special hatch closure system secures it against being opened by unauthorised persons.

# Our products are used in:

Halls, warehouses, cold stores
Industrial buildings
Logistics centres
Sports halls and similar facilities
Public buildings
Shopping centres



Γhe systems we offer are fully certified. They are constructed in compliance with all standards and legal requirements Moreover, they are durable and provide reliable solutions because we pay utmost attention to the quality of all structura elements.

We can offer not only our products, but their assembly, repair, or modernisation, too. Additionally, we offer warranty post-warranty, and maintenance services of our installations. Our employees are a team of professionals who advise or the right choice of particular systems, purchase, delivery, installation, and maintenance.

KERA AWAK - Smoke vents www.awak.pl

# **Smoke vents**

Smoke vents are a particularly important part of the roof system. Their main purpose is to extract smoke when a fire occurs. They are also used to remove other life and health threatening fumes created in a fire. The smoke vent cover is made of a material that lets the sunlight in. It provides additional lighting to a facility. That way smoke vents function as skylights, too.

KERA AWAK - Single leaf smoke vents www.awak.pl



# SINGLE LEAF SMOKE VENTS

## **Characteristics**

- Smoke vents are used to extract smoke produced by a fire;
- They facilitate the evacuation of people by keeping a smoke-free layer in the lower part of the facility;
- Smoke vents facilitate the rescue team operations;
- Protect the building structure;
- Reduce indirect losses caused by the emitted smoke and hot fire gases;
- Serve as skylights providing more natural daylight in the premises in which they are installed;
- They can also be used as room vents if appropriate actuators are installed



# **Technical description**

#### The upstand of the vent

- Made of galvanised steel sheet min. 1.25mm thick (straight, straight-slant or slant upstand 350 mm, 500 mm, and 750 mm high). The upstand should be insulated with a layer of mineral wool, polystyrene, or PIR foam 40 mm thick;
- Made of PVC (slant upstand 300 mm high). The upstand does not require insulation because it is insulated with a layer of expanded polystyrene.

#### **Compensation frame**

Once the upstand is fixed and finished, the special cut-outs in its corners enable easy snap-fit mounting of the PVC compensation frame.

#### Hinged cover

- The hinged cover consists of a frame and a cover. Covers can be made in the form of a dome (made of acrylic or solid polycarbonate) or flat (made of cellular polycarbonate). The cellular polycarbonate cover can be made in Broof (t1)/NRO classification;
- The frame is made of PVC or aluminium profile. It is secured around the whole perimeter with gaskets preventing water from getting inside.

#### Drive

The smoke vent is activated with either a 24 V electric drive or a pneumatic drive. Ventilation function will require to supplement the pneumatic drive with an additional 230 V actuator, while the 24 V drive will suffice for both smoke extraction and ventilation functions.

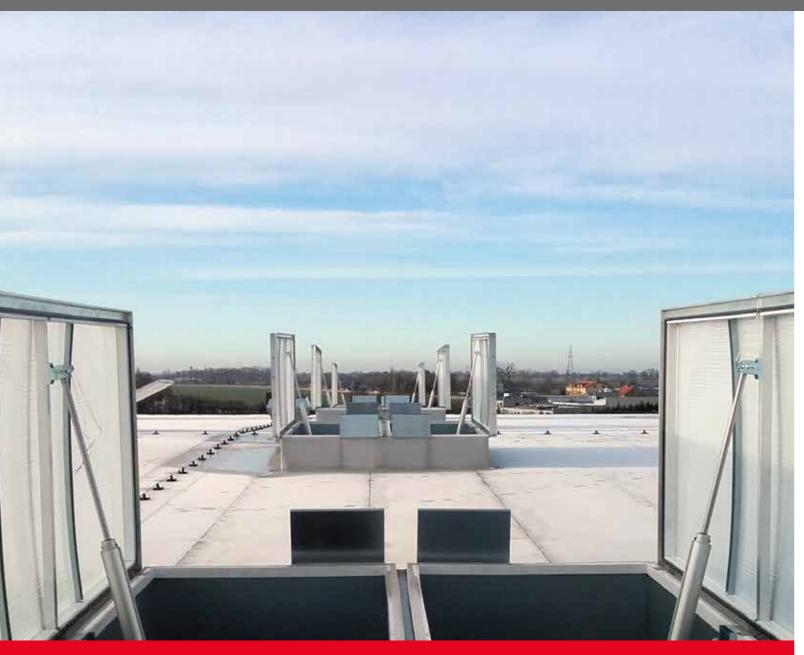
# **Technical parameters**

- Single-leaf smoke vents are made in dimensions ranging from 100 cm x 100 cm up to 200 cm x 300 cm in various dimensions:
- Re1000 They demonstrate operational reliability in 1000 cycles of opening and closing the smoke vent leaf to the ventilation position, 1000 cycles of activation of the trigger circuit without any loss of efficiency and efficient opening time not longer than 60 seconds;
- SL250 / SL550 / SL900 reliable operation under a load of 250 N/m2, 550 N/m2, and 900 N/m2, respectively
- WL1500 wind load resistance up to 1500 Pa;
- B300 temperature resistance up to 300 °C;
- 1.1-2.5 W/m2K heat transfer coefficient for the entire product. The coefficient value depends on the choice of cover and upstand variants;
- Cover made of polycarbonate 21 mm, 27 mm, or 33 mm thick in accordance with the NRO/Broof (t1) requirements
- High values of smoke extraction parameters specified in the Performance Certificate 1488-CPR-0042/W.

# **Additional options**

- Smoke vent can be equipped with an anti-fall grate or/and a mosquito net;
- Smoke vent can be equipped with anti-fall grab bars;
- Inner side of the upstand can be painted in any colour from the RAL palette;
- Retrofitting the smoke vent with a smoke extraction and ventilation system, e.g., smoke extraction control panel, smoke detectors, emergency buttons.

KERA AWAK - Double leaf smoke vents www.awak.pl



# **DOUBLE LEAF SMOKE VENTS**

## **Characteristics**

- Smoke vents are used to extract smoke produced by a fire;
- Smoke vents facilitate the evacuation of people by keeping a smoke-free layer in the lower part of the facility;
- They facilitate the rescue team operations;
- Protect the building structure;
- Reduce indirect losses caused by the emitted smoke and hot fire gases;
- Serve as a skylight. They provide more daylight in the premises in which they are installed;
- They can also be used as part of residential ventilation system if appropriate actuators are installed.



# **Technical description**

#### The upstand and gutter of the upstand of a smoke vent

- Upstand made of galvanised steel sheet min. 1.25 mm thick (straight or straight-slant 350, 500, or 750 mm high). The upstand should be insulated with a layer of mineral wool or polystyrene 40 mm thick;
- The gutter of the upstand is made of galvanised steel sheet min. 1.25 mm thick. The gutter of the Upstand should be insulated with a layer of mineral wool or polystyrene min. 20 mm thick.

#### **Compensation frame**

Once the upstand is fixed and finished, the special cut-outs in its corners enable easy snap-fit mounting of the PVC compensation frame.

#### **Hinged cover**

The hinged cover consists of two frames and two covers made of cellular polycarbonate.

Smoke vents can be made in Broof (t1)/NRO classification.

The frame is made of PVC or aluminium profile. It is secured around the whole perimeter with gaskets preventing water from getting inside.

#### Drive

The smoke vent is activated by two 24 V electric drives or two pneumatic drives. Ventilation function will require to supplement the pneumatic drive with an additional 230 V actuator, while the 24 V drive will suffice for both smoke extraction and ventilation functions.

# **Technical parameters**

- Large surfaces of smoke vents, up to 300 cm x 300 cm;
- Re1000 They demonstrate operational reliability in 1000 cycles of opening and closing the smoke vent leaf to the ventilation position, 1000 cycles of activation of the trigger circuit without any loss of efficiency and efficient opening time not longer than 60 seconds;
- SL250 / SL550 / SL900 reliable operation under a load of 250 N/m2, 550 N/m2 and 900 N/m2;
- WL1500 wind load resistance up to 1500 Pa;
- B300 temperature resistance up to 300 °C;
- 1.1-2.5 W/m2K heat transfer coefficient for the entire product. The coefficient value depends on the choice of cover and upstand variants;
- Cover made of polycarbonate 21 mm, 27 mm, or 33 mm thick in accordance with the NRO/Broof (t1) requirements
- High values of smoke extraction parameters specified in the Performance Certificate 1488-CPR-0042/W.

# **Additional options**

- Smoke vent can be equipped with an anti-fall grate or/and a mosquito net;
- Smoke vent can be equipped with anti-fall grab bars;
- Inner side of the upstand can be painted in any colour from the RAL palette;
- Retrofitting the smoke vent with a smoke extraction and ventilation system, e.g., smoke extraction control panel, smoke detectors, emergency buttons.

KERA AWAK - Roof skylights www.awak.pl



KERA AWAK - Fixed skylights www.awak.pl



# **FIXED SKYLIGHT**

## **Characteristics**

- Roof skylights provide convenient lighting and even distribution of daylight;
- Popular application of skylights is spot lighting of workstations located directly under the skylight;
- Application of skylights helps to minimise electricity costs.



# **Technical description**

#### The skylight upstand

- Made of galvanised steel sheet min. 1.25 mm thick (straight or slant 150 mm, 350 mm, 500 mm, or 750 mm high). The upstand should be insulated with a layer of mineral wool, polystyrene or PIR foam 40 mm thick;
- Made of PVC (straight upstand 200 mm high or slant 150 mm or 300 mm high). The upstand does not require insulation because it is insulated with a layer of expanded polystyrene.

#### **Compensation frame**

Once the upstand is fitted and finished, the special cut-outs in its corners enable easy snap-fit mounting of the PVC compensation frame.

#### Skylight cover

The cover can be made of cellular polycarbonate, solid polycarbonate, or acrylic glass. The cover comes in two variants: transparent or milky. Additionally, the cover can be made in the form of a dome (acrylic glass or solid polycarbonate) or flat (cellular polycarbonate). The cellular polycarbonate cover can be made in Broof (t1)/NRO classification.

# **Technical parameters**

- Skylights are made in dimensions ranging from 60 cm x 60 cm up to 200 cm x 300 cm in various dimensions;
- DL 750 downward load resistance up to 750 N/m2;
- UL 1500 upward load resistance up to 1500 N/m2;
- SB 300 soft and heavy body impact
- 1.1-2.5W/m2K heat transfer coefficient for the entire product. The coefficient value depends on the choice of cover and upstand variants;
- Cover made of polycarbonate 21 mm, 27 mm, or 33 mm thick in accordance with the NRO/Broof (t1) requirements.

# **Additional options**

- Skylight can be equipped with an anti-fall grate;
- · Skylight can be equipped with anti-fall grab bars;
- Possibility to use an additional E30/EI30 partition;
- Inner side of the upstand can be painted in any colour from the RAL palette;

KERA AWAK - Skylights with ventilation function www.awak.pl



# SKYLIGHTS WITH VENTILATION FUNCTION

### **Characteristics**

- Roof skylights provide convenient lighting and even distribution of daylight;
- Popular application of skylights is spot lighting of workstations located directly under the skylight;
- Skylights with ventilation function enable natural ventilation of the rooms in which they are installed;
- Application of skylights helps to minimise electricity costs;
- They have a wide application in large facilities, as they can effectively replace traditional windows.



# **Technical description**

#### The skylight upstand

- Made of galvanised steel sheet min. 1.25 mm thick (straight or slanted upstand 150 mm, 350 mm, 500 mm, or 750 mm high). The upstand should be insulated with a layer of mineral wool, polystyrene or PIR foam 40 mm thick;
- Made of PVC (straight upstand 200 mm high or slant upstand 150 mm or 300 mm high). The upstand does not require insulation because it is insulated with a layer of expanded polystyrene.

#### **Compensation frame**

Once the upstand is fixed and finished, the special cut-outs in its corners enable easy snap-fit mounting of the PVC compensation frame.

#### **Hinged cover**

The hinged cover consists of a frame and a cover. The cover can be made of cellular polycarbonate, solid polycarbonate, or acrylic glass. Additionally, the cover can be made in the form of a dome (acrylic glass or solid polycarbonate) or flat (cellular polycarbonate). The cellular polycarbonate cover can be made in NRO classification. The frame is made of PVC or aluminium profile. It is secured around the whole perimeter with gaskets preventing water from getting inside.

#### Drive

The following opening systems are used in skylights to ventilate facilities:

- A manual screw opener (with a detachable crank) with the spindle extension length of 300 mm;
- 230 V electric actuator with the spindle extension length of 300 mm or 500 mm and ventilation buttons;
- 24 V electric actuator.

# **Technical parameters**

- Skylights are made in dimensions ranging from 60 cm x 60 cm up to 200 cm x 300 cm in various dimensions;
- DL 750 downward load resistance up to 750 N/m2;
- UL 1500 upward load resistance up to 1500 N/m2;
- SB 300 soft and heavy body impact
- 1.1-2.5 W/m2K heat transfer coefficient for the entire product. The coefficient value depends on the choice of cover and upstand variants;
- Cover made of polycarbonate 21 mm, 27 mm, or 33 mm thick in accordance with the NRO/Broof (t1) requirements

# **Additional options**

- Skylight can be equipped with an anti-fall grate and/or mosquito net;
- Skylight can be equipped with anti-fall grab bars;
- Inner side of the upstand can be painted in any colour from the RAL palette.

KERA AWAK - Roof hatches



KERA AWAK - Roof hatches www.awak.pl



# **ROOF HATCH**

## **Characteristics**

- A roof hatch is an easy-to-install and reliable in use structure ensuring safe access to the roof area;
- They also provide daylight to the highest storeys of flat roof facilities and staircases in multi-storey buildings.



# **Technical description**

#### The upstand of a roof hatch

- Made of galvanised steel sheet min. 1.25 mm thick (straight or slant 150 mm, 350 mm, 500 mm, or 750 mm high). The upstand should be insulated with a layer of mineral wool, polystyrene or PIR foam 40 mm thick;
- Made of PVC (straight upstand 200 mm high or slant 150 mm or 300 mm high). The upstand does not require insulation because it is insulated with a layer of expanded polystyrene.

#### **Compensation frame**

Once the upstand is fixed and finished, the special cut-outs in its corners enable easy snap-fit mounting of the PVC compensation frame.

#### Hinged cover

The hinged cover consists of a frame and a cover. The cover can be made of cellular polycarbonate, solid polycarbonate, or acrylic glass. Additionally, the cover can be made in the form of a dome (acrylic glass or solid polycarbonate) or flat (cellular polycarbonate). The cellular polycarbonate roof hatch can be made in Broof (t1)/NRO classification. The frame is made of PVC or aluminium profile. It is secured around the whole perimeter with gaskets preventing water from getting inside.

#### Drive

Roof hatches ensuring roof access are opened manually. In order to reduce the force needed to open the cover and maximise the user's comfort, gas springs and a handle are used.

# **Technical parameters**

- Roof hatches are made in dimensions ranging from 60 cm x 60 cm up to 150 cm x 150 cm in various dimensions;
- DL 750 downward load resistance up to 750 N/m2;
- UL 1500 upward load resistance up to 1500 N/m2;
- SB 300 soft and heavy body impact
- 1.1-2.5 W/m2K heat transfer coefficient for the entire product. The coefficient value depends on the choice of cover and upstand variants;
- Cover made of polycarbonate 21 mm, 27 mm, or 33 mm thick in accordance with the NRO/Broof (t1) requirements.

# **Additional options**

- The roof hatch can be equipped with anti-fall grab bars;
- Inner side of the upstand can be painted in any colour from the RAL palette.

KERA AWAK - Continuous rooflights www.awak.pl



KERA AWAK - Continuous rooflights www.awak.pl



# **CONTINUOUS ROOFLIGHTS**

## **Characteristics**

- The use of continuous rooflights allows to reduce the need for artificial lighting and thus greatly reduces the electricity bills;
- Continuous rooflights can be equipped with a ventilation flap providing natural ventilation of facilities;
- They are widely used in large-scale facilities, i.e., production halls, logistics centres, warehouses, sports facilities, high-rise warehouses, and shopping centres;
- Continuous rooflights can be equipped with a smoke vent for smoke extraction;
- They can be made in two variants: triangular or arched.



# **Technical description**

#### The upstand of a continuous rooflight

The upstand is made of galvanised steel sheet 1.5 mm – 3 mm thick and 150 mm – 750 mm high. The upstand should be insulated with a layer of mineral wool, polystyrene, or PIR foam 50 mm or 100 mm thick. The upstand is mounted on a constructed supporting structure. Optionally, the upstand can be made in a self-supporting version with a max. 6 metres row spacing of support points.

#### Structural and cover aluminium profiles

The structural profiles, correctly connected together with fasteners, constitute a rigid and light frame in which covers are fixed. Cover profiles are the finishing elements of a continuous rooflight.

#### Cover of a roof light

The cover of a continuous rooflight is made of cellular polycarbonate or cellular polycarbonate combined with a special fabric, owing to which we will receive a product that can be classified into non fire spreading class Broof (t1)/NRO.

#### Smoke vent or ventilation flap in a continuous rooflight

The flap or vent in a continuous rooflight is an additional element. The smoke vent is activated with either a 24 V electric drive or a pneumatic drive. Ventilation function will require to supplement the pneumatic drive with an additional 230 V actuator, while the 24 V drive will suffice for both smoke extraction and ventilation. With ventilation function only just one 230 V actuator is used.

# **Technical parameters**

- Width up to 6 m for arch continuous rooflights or 4.5 m for triangular continuous rooflights;
- DL 750 downward load resistance up to 750 N/m2;
- UL 1500 upward load resistance up to 1500 N/m2;
- SB 300 soft and heavy body impact
- 1.1-2.5 W/m2K heat transfer coefficient for the entire product. The coefficient value depends on the choice of cover and upstand variants;
- Cover made of polycarbonate 21 mm, 27 mm, or 33 mm thick in accordance with the NRO/Broof (t1) requirements.

# **Additional options**

- Option to equip the elongated skylight with ventilation, smoke or smoke and ventilation hatch;
- · Option to equip with anti-fall grate and anti-insect screen;
- · Option to equip elongated skylights with anti-fall grips;
- Option to use an additional E30/EI30;
- Option to paint the upstand from the inside in any RAL colour;
- Continious skylights hatches equiped with a smoke venting and ventilation system elements, for example smoke venting control panel, smoke detectors, alarm buttons.

KERA AWAK - Projects in Poland (selected)



#### **Industrial projects**

ABC Logis Sp. z o.o. two warehouse halls Chocicza Mała Allpack Polska Sp. z o.o. warehouse Kargowa Asclepios S.A. warehouse Sieradz Pruszków Regional base Strabag BMTI Centre DINO Polska S.A. logistic centre Sieroniowice DINO Polska S.A. logistic centre Sierpc Gestamp Polska Sp. z o.o. manufacturing plant Białężyce Aluminium Ironworks extension Konin IKANO Industry Poland Sp. z o.o. production hall and warehouse Rogoźno IKEA Industry Poland Sp. z o.o. warehouse Chlastawa IKEA Industry Poland Sp. z o.o. warehouse Lubawa Impakt S.A. warehouse Mosina Jakon Sp. z o.o. production and warehouse hall Kajetany Jeronimo Martins Polska S.A. distribution centre Modlinica JMK Sp. z o.o. warehouse Niałek Wieki koło Wolsztyna KABAT TYRE Sp. z o.o. production and warehouse hall Budzyń KOIMEX S.A. service and warehouse hall Świebodzin Logistic Park P3 warehouse Robakowo Nord Napędy Sp. z o.o. manufacturing hall Nowa Sól Koszalin Rosaco Polska Sp. z o.o. warehouse Volkswagen Poznań Sp. z o.o. production and warehouse hall **Antoninek** 

#### **Public utility facilities**

Poznań Administrative and Cultural Centre Obrzycko Collegium Martineum Poznań Buk Cross-country Skiing and Biathlon Center Jakuszyce Kindergarten no. 4 "BAJKA" Toruń Hospital of Pomnik Chrztu Polski Gniezno Poviat Hospital of M. Nencki Krotoszyn Faculty of Pharmacy Poznań Higher School of Pedagogy and Administration Poznań

#### **Residential and service buildings**

Leroy Merlin

Lidl redevelopment of a shopping centre

Jaśminowe housing estate

Nowe Tarnowo housing estate

Osada Złotnicka housing estate

Wrocław
PSB Mrówka

Mercedes-Benz car show room

Corzów Wlkp.

Lexus car show room

Kraków

Olsztyn

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KERA AWAK - Foreign projects (selected) www.awak.pl





**Foreign projects** 

#### **Austria**

Warehouse
Administrative building Shopping centre
Production hall
Vosendorf

#### Bulgaria

Elacite med. production hall

Domus NG production hall

Sofia

#### **Czech Republic**

Kindergarten

Administrative building

Doubravcice

Praha 4

#### Lithuania

Senukai supermarket
Utena Supermarket
Warehouse
Secondary school in Vilnius

Kaunas
Utena
Vilnius
Vilnius

#### Latvia

Shopping centre and warehouse
Warehouse
Riga
shopping centre
Riga

#### Pomani:

Ralcorex Production hall
Lacoste production hall
Sibiu

#### Russia

LG production hallDorohovo, MOLeroy Merlin shopping centreEkaterinburgHyundai manufacturing hallSankt Petersburg, KamenkaObuhovskiy manufacturing hallSankt PetersburgNestle manufacturing hallVorsino

#### Sweden

Sports centre

Production hall Jonkoping shopping centre Stockolm Bromm

Zvenigorod, MO

#### Slovakia

P1 Warehouse Bratislava

#### Ukraine

Novus chain shopping centre Ukraine

#### Hungary

Mediterran manufacturing hallBolyNEMAK manufacturing hallGyorPoliax manufacturing hallSzfar