Three-layer water insulation membrane AlphaProPlus

1. **Technical specification**: EN 13967:2012 Flexible sheets for waterproofing. Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet. Definitions and characteristics.

2. **Manufacturer/Place of production**: Alpha Dam Sp. z o.o., 87-207 Dębowa Łąka 45

3. **Distribution in Poland:** IBET Sp. z o.o., ul. Smugowa 49. 03-032 Warszawa

4. **Product description**: Three-layer membrane, consisting of a polymer core, laminated on one side with fleece. Thanks to the use of **AlphaProPlus** technology, the membrane is very durable and lightweight, the outer layer bonds perfectly with concrete.

5. **Intended use and scope of application:**
   Sheet used in wall construction or in or under floors or ground slabs to prevent liquid water under hydrostatic pressure passing from the ground into the internal environment or from one section of the structure to another.

6. **AlphaProPlus system composition:**
   The waterproofing system for underground parts of the building includes a waterproofing layer made of the **AlphaProPlus** membrane and sealing of construction joints, expansion joints and all elements passing through the waterproofing layer. When using the **AlphaProPlus** membrane as a waterproofing layer, it is permissible to use sealing elements for construction joints and expansion joints from other manufacturers. However, materials that may cause mechanical damage to the membrane, deterioration of technical parameters or degradation should not be used..
   - 6.1. Three-layer membrane **AlphaProPlus**
   - 6.2. APP150 tape
   - 6.3. APP40H double-side adhesive tape
   - 6.4. APP10/7 sealing cord
   - 6.5. EPDM collar for sealing ducts, pipes and round punctures
   - 6.6. Liquid sealant based on bitumen-rubber or butyl mass
   - 6.7. Swelling tape
     - 6.7.1. Sealing putty
     - 6.7.2. MS-Polymer glue
   - 6.8. Injection hoses
   - 6.9. Expansion and construction joint tapes
   - 6.10. Octagon

7. **Laying method**:
   7.1. horizontally on a concrete base or on a substrate made of e.g. compacted sand
   7.2. vertically, e.g. in formwork before concreting, directly to the wall or to the thermal insulation board

8. **Information for the user**:
   8.1. <u>Placement conditions:</u>

An AlphaProPlus membrane placement should be carried out under conditions, which enable normal masonry work. Placements should not be carried out at temperatures below -5 °C. Prevent damages to the membrane during the placing and fixing of reinforcement. The base for the membrane should be non-deformable, compacted, smooth, clean and uniform, without sharp edges and defects or protruding grains of the aggregate. Works during placing and fixing of reinforcement and formwork should be carried out with a due care to avoid damage to the waterproof membrane.

8.2. Use conditions:

A waterproofing with AlphaProPlus membranes should be carried out according to a technical project prepared in compliance with valid building code.

8.3. Bonding:

Mechanical fastening of the membrane edges to the formwork using a tacker before gluing or welding or fastening in a glued system to the prepared concrete structure using a suitably selected adhesive, e.g. Styrbit. In the case of using a different adhesive, consult the manufacturer. When using any method of membrane installation, an overlap of at least 6 cm should be used between the membrane strips.

In the event of a strip free from non-woven fabric being formed during membrane connections, it is necessary to stick APP150 tape to mask the strip free from non-woven fabric. The membrane strips should be connected lengthwise using APP40H butyl tape with a minimum width of 4 cm. The membrane strips across should be connected using APP150 tape applied from the top and bottom of the connection..

8.4. Concrete mix and concrete:

The mix should be laid directly on executed waterproof membrane system. The mix should have a consistency allowing exact soaking and penetration of cement grout into a structure of polypropylene unwoven fabric to obtain correct bonding of system with concrete. It is important to ensure correct laying, compacting and curing of concrete. The insulated reinforced concrete structure should be designed in accordance with applicable standards, ensuring a minimum degree of reinforcement. The element should be made of concrete C20/25÷C40/50 with a consistency of S3÷S4.

Before concreting of foundation slab, it is necessary to remove possible contaminations from the waterproof membrane e.g. by washing under pressure (next, remove formed standing water) or with compressed air.

8.5. 6.5. Storage:

Before the use at construction site an AlphaProPlus membrane should be stored in its original packing protected against solar radiation

9. Information on the CE marking

In accordance with the requirements ensuing from the standard EN 13967:2012

CE

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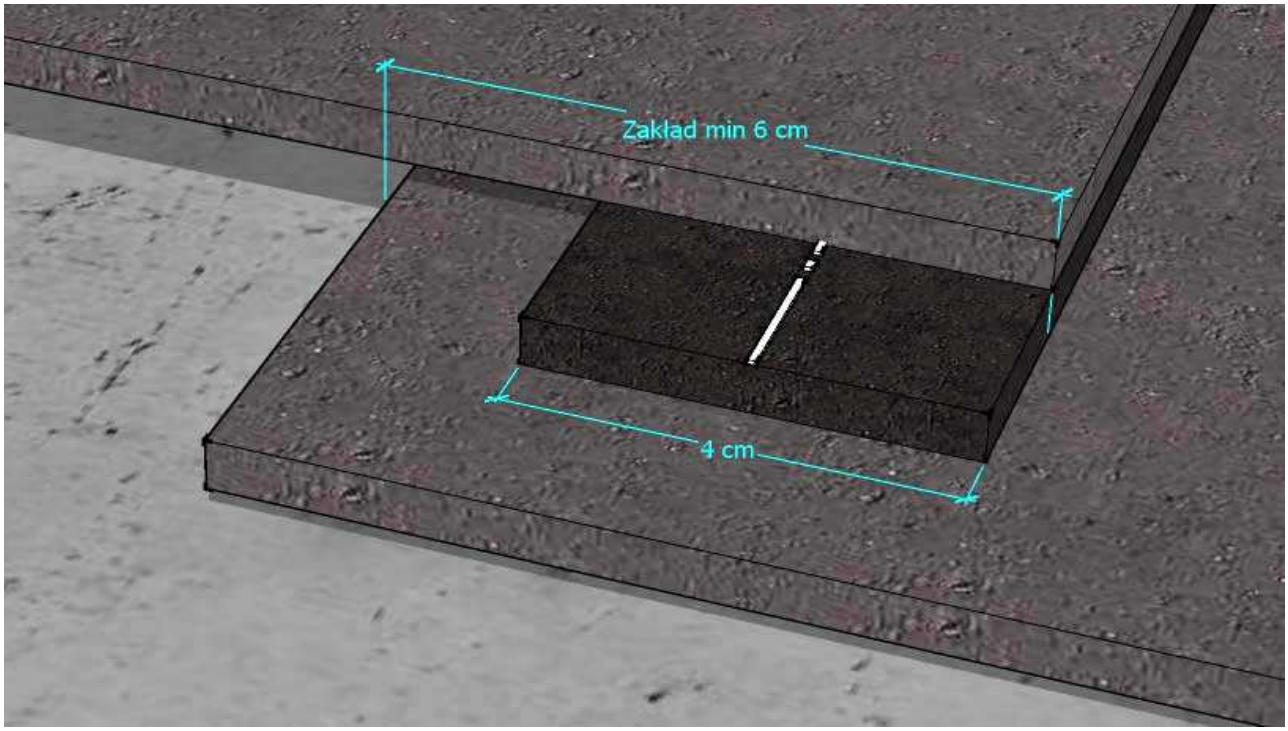
Certificate of Conformity of the Factory Production Control No 1434-CPR-0257

Use of the CE marking is subject to Plant's Production Control by Polish Testing and Certification Canter S.A., Testing and Certification Branch in Gdańsk.

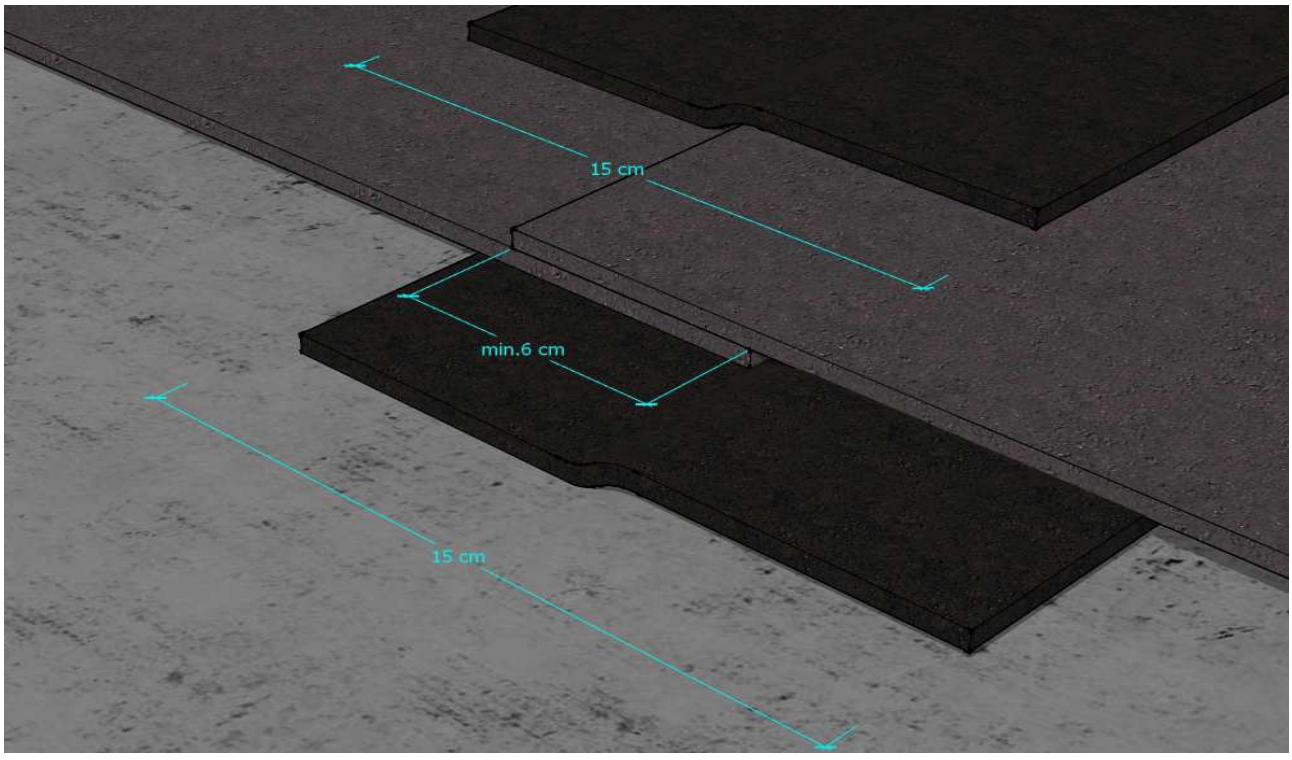
10. Product characteristics:

Essential characteristics	Unit	Performance
Visible defects	-	no visible defects
Length	m	25 (0% do +5%)
Width	m	1,500 (0% do +1%)
Straightness	mm	≤ 30/10 mb
Thickness	mm	1,300 (±5%)
Mass	kg/m^2	1,150 (±5%)
Water tightness	600 kPa method B	meets requirements
Resistance to static loading	kg method B	≥ 20
Tensile properties: Maximum strength: - in longitudinal direction: - in transverse direction: Elongation: - in longitudinal direction: - in transverse direction	method A N/50mm N/50mm % %	 ≥ 450 ≥ 350 ≥ 350 ≥ 350
Durability after artificial ageing	60 kPa metoda B	meets requirements
Durability after alkali resistance	60 kPa metoda B	meets requirements
Tear resistance: - in longitudinal direction: - in transverse direction:	 N N	 ≥ 270 ≥ 300
Resistance to impact	mm method A	≥ 450
Joint shearing strength: - Longitudinal overlapping - Transverse overlapping	N/50 mm	 ≥ 150 ≥ 130
Water tightness of joint (with APP 40H)	60 kPa method B	meets requirements
Water tightness of joint (with using a thermal seal)	60 kPa method B	meets requirements
Resistance to low temperature	°C	≤ -30
Degree of radon permeability Transmittance Resistance Permeability	 m/s s/m m^2/s	 3,81 x 10^{-8} ± 5,71 x 10^{-9} 2,63 x 10^{7} ± 3,94 x 10^{6} 4,57 x 10^{-11} ± 6,85 x 10^{-12}
Resistance to artificial aging through prolonged exposure to elevated temperatures	24 weeks 70 °C	no visible defects
Adhesion to concrete after 28 days	MPa	1,09
Resistance to lateral water migration	-	to 5 bar
Reaction to fire	class	E
Ability to mask cracks appearing in concrete	µm	250
Dangerous substance	-	NPD

11. Basic connections:



P-02 Glued connections of membranes along the length using double-sided butyl tape APP40H with a minimum width of 4 cm.



P-01b Crosswise membrane connections. APP150 tape should be used from the bottom and top of the overlap.

Signed for and on behalf of the manufacturer by

Majek Iwona

Proxy Iwona Majek

Dębowa Łąka, 12 December 2023