

# dB BLOCK



Multipurpose paste



## PROPERTIES

An innovative product having 6 unique properties: Crack-resistant, Anti-vibration, Heat-insulating, Soundproofing, Bonding & Waterproofing coating. Available in paste form, with exceptional adhesion to any type of surface, without the use of any primer before its application. Its innovative formula contains polyurethane and acrylic resins, as well as a blend of Buna-s type rubber. It presents a great soundproofing quality for absorbing airborne as well as impact generated noises, that originate from the exterior or the interior environment and reduces the transmission of disturbing and unwanted noises from 50% to 70%.

Its uniqueness is focused on its paste form, which ensures excellent workability and applicability even in the most inaccessible areas of building structures. The only requirement for the product to achieve its maximum potential is for a very light and thin coat to be applied.

dB BLOCK was created to limit noise pollution and to provide heat insulation, anti-vibration, crack resistance protection and to ensure better living conditions for residents of every building

that was not originally designed and planned for coping with the above discomforts.

Certified by the National Hellenic Research Foundation (Nano application Laboratory of the Theoretical and Physical Chemistry Institute) for its sound-proofing properties.

Certified by the University of Athens (UoA/Group of Building Environmental Studies, Department of Physics) for its thermal insulation properties. Classified as product for surface protection of concrete surfaces (c), per EN 1504-2.

## ADVANTAGES

- Ideal for new constructions and renovations of buildings, hotels, gyms, children's rooms, kindergartens, offices, metal buildings lined with insulating panels, catering places, coffee shops, night clubs and other residential and commercial facilities
- Small thickness of final coat, 2-3mm
- Uniform surface without joints or seams
- Absorbs small expansions and contractions of the substrate

The technical specifications and directions of use contained in this technical brochure are the results of the knowledge and experience of the company's research and development department, as well as from the real-life applications of the product. The recommendations and suggestions regarding the use of the products are made without guarantee since the respective conditions during their application are beyond the control of the company. For this reason, it is the user's responsibility to make sure that the product is suitable for the intended application as well as the application conditions of the project.

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- Significantly reduces lateral sound transmission from airborne and impact related noises
- It can be painted or lined with carpet, wood flooring, laminate, ceramic tiles, pressed cement screed etc. without hindering its properties
- Strong adhesion to most materials
- Exceptionally flexible bonding of dissimilar materials
- Remains flexible permanently
- Easy application, even on uneven surfaces made of different materials
- Easy clean up with water and sponge while it is still fresh
- It is a poor conductor of heat and electricity
- It waterproofs and energy-upgrades the surfaces it is applied on
- It combines and bonds all types of foam sound-absorbing (acoustic) panels

### APPLICATIONS

Suitable for application on interior and exterior, vertical and horizontal building surfaces made of plaster or concrete, drywall or cement board, wood surfaces and woodwork made of plywood, OSB etc., as well as metallic surfaces and ironworks, sheet metal, aluminum panels, polyester, plastic, PVC pipes and a variety of other materials. DB Block is ideal for application in new, under construction, or existing buildings, but also for renovations of hotels, shops, catering places etc.

### USE

#### 1. Surface preparation

The substrate must be sound, free from loose sections, dust sand oils. Surfaces that are brittle or they dust must be primed first with the micromolar stabilizer AQUAFIX or SOLVENT BASED PRIMER of DUROSTICK.

Surfaces, such as ceilings, must be free from adhesives and ceiling paints and they have to be thoroughly cleaned in order to receive the application dB BLOCK of DUROSTICK safely.

Prepare all steel surfaces by coating with the appropriate primer.

#### 2. Application

Apply the ready to use product as is with a 4-6mm notched trowel to determine the maximum thickness of 2-3mm.

Use the straight edge of the same trowel to smooth the surface and create a sufficiently flat surface.

The product can also be applied with a straight spatula (spackling knife), always depending on the application and thickness of the product.

In hard-to-reach places, tight spots and corners, easily apply the product using a wide brush or a whitewash brush, in one or two equal-thickness coats. Apply the second coat 5-7 hours after the first one, depending on the weather conditions (temperature, humidity).

For better workability, depending on the application, the product can be diluted up to 5% with water.

**New or existing, painted or unpainted walls or ceilings:** Apply one coat, 2-3mm thick. A second coat is optional, depending on the requirements of the project. For exceptionally smooth surfaces and after 2-3 days, all interior surfaces can be coated over with the elastomeric STUCOFIX ELASTIC PUTTY. The following day and once the putty is thoroughly dry, paint the new surface with the ecological emulsion paint SUPER ECO of DUROSTICK, available in a wide range of shades. In order to create different decorative styles, apply the microcement in paste form DS-258 DECO MICRO FLEX or the resinous decorative cement mortar DS-259 DECO MICRO RESIN, directly onto the dB BLOCK surface. Once dry, protect the decorated surface with the odorless varnish DECOFIN AQUA, or with DECOFIN AQUA PU of DUROSTICK.

For the protection and decoration of exterior surfaces, we recommend the use of the elastomeric paint D-80 HYDROSTOP ELASTIC or the use of the Thermo Ceramic, Energy Efficient paint THERMOELASTIC COLOR, of DUROSTICK, both available in a wide range of colours.

Coat all wall and ceiling surfaces with dB BLOCK to soundproof them, insulate them from heat and protect them from cracks.

**New or existing drywall surfaces:** Constructs made of drywall, cement boards or fiberboards, installed on walls, ceilings and partitions, are an ideal application field for dB BLOCK. Its application does not require priming, taping or spackling of the seams and screws; it coats the construction surfaces and yields onto them sound-proofing, waterproofing, anti-vibration and heat-insulating properties. At the same time, it ensures the

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protection of the application surfaces and makes them crack resistant. Paint, or otherwise coat, the top surface as described above.

**OSB type constructs:** Coat them with dB BLOCK, without the use of any primer, to waterproof and soundproof them; and give them anti-vibration properties, while ensuring the crack resistance of their joints and of their top coatings.

**Unpainted MDF and plywood surfaces** are first primed with the wood preservative DUROXYL WOOD Protection/Conditioner and then are coated with dB BLOCK of DUROSTICK.

**Metal surfaces**, such as metal buildings, aluminum panels, and lofts are coated with dB BLOCK and dramatically reduce the sound of rain or other sounds from the outside. Unpainted metal surfaces are first primed with METAL PRIMER of DUROSTICK and then coated with dB BLOCK.

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**Floor surfaces made of mosaic, ceramic tiles, laminate, wood, marble, but also for the installation of any size ceramic tiles over existing tiles or new bare floors surfaces:** Using a notched trowel, apply dB BLOCK as is, without having to demolish/remove the existing lining, and smooth its surface with the straight side of the same trowel. Once thoroughly dry, it accepts flexible tile adhesives, such as the tile adhesives ELASTIC or EXTRA POWER of DUROSTICK. Ideally, grout the tiles using the epoxy grout DUROPOXY or by using the VITREOUS TILE GROUT 1-10mm of DUROSTICK.

Use it to install/adhere hardwood flooring and wood linings, laminate flooring, carpets, without requiring any other adhesive material.

Even in new constructions or in space renovations, dB BLOCK is applied directly to sound cementitious substrates and concrete, without the requirement of any primer.

For all of the aforementioned reasons -among others- dB BLOCK is evolving into THE favorite product of renovations.

**Microcement (pressed cement screed) installation on floors made of mosaic or ceramic tiles or even new, bare floor surfaces:** dB BLOCK precedes any application and acts as a substrate with anti-vibration and crack resistant properties. It 'receives' and absorbs all expansions and contractions of the actual substrate

and at the same time, seals the substrate against rising damp.

Apply it directly, as is, and allow for it to dry thoroughly for 2-4 days, depending on the temperature and humidity of the environment (ambient conditions). Continue with the application of the microcement (pressed cement screed) of DUROSTICK, DS-252 FLEX, to a thickness of 5mm, and the encasement of the reinforcing fiberglass mesh, DUROSTICK DS-4160, in the microcement mass.

**External thermal insulation system for building facades:** The introduction of dB BLOCK in their application process enhances the thermal insulation properties of the systems. It ensures the systems' water tightness, the crack protection of top coat plasters and sound proofs from airborne noises coming from the outdoor environment (EN ISO 12354-3). Apply dB BLOCK prior to the application of the silicone-based plaster HYDROSTOP SILICONE PLASTER, or the acrylic-based plaster HYDRO-STOP ACRYLIC PLASTER, or the cement-based plaster HYDROSTOP PLASTER ELASTIC.

**Internal thermal insulation system for buildings:** The internal thermal insulation and soundproofing of a space achieved through the application of dB BLOCK is the most suitable solution for existing and new homes where they can easily, quickly and economically upgrade their thermal and sound insulation value. Due to its small application thickness (2-3mm), it is ideal for interior wall (wet, cold) surfaces, ceilings, attics and closet interiors without the slightest disturbance of that space. For every building that its exterior surfaces cannot be thermally insulated (preserved neoclassical buildings or apartment buildings with owners who do not agree to exterior interventions), dB BLOCK is the only solution. The product soundproofs and (heat) insulates the interior spaces of homes with a resilient and flexible sound-proof and energy-efficient protective coat that is capable of stopping the flow of airborne disturbing noises, regardless if they generate indoors or out. In terms of energy efficiency, it will reduce the temperature variations between the interior and exterior surfaces, drastically reducing the condensation of water vapor, resulting in fungal growth and mold formation. Coat all wall and ceiling surfaces with dB BLOCK to soundproof them, waterproof them,

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heat-insulate them and protect them from cracks.

**Waterproofing system for roofs:** The application of dB BLOCK as an undercoat for waterproofing products on roofs and terraces ensures total sealing and waterproofing of the surfaces over time, even if the top waterproofing coat is damaged or fails. Due to its flexibility, the product is able to follow the movement of the structure elements/substrates over time and remains unaffected by ground vibrations and rapid temperature variations. The above properties result in the protection and the extension of the longevity of the waterproofing coat.

Apply it directly over concrete, without any primer, and perfectly coat over capillaries and micro cracks without using fiberglass mesh. The applied product will also prevent micro cracks from reappearing. Prior to the application of dB BLOCK, on dusting cementitious substrates and surfaces, apply the micromolar stabilizer AQUAFIX of DUROSTICK with a roller and a brush. The waterproofing of a roof can be done with flexible cementitious waterproofers, such as HYDROSTOP ROOF or TWO COMPONENT HYDROSTOP, it can be done with acrylic waterproofers, such as DS-220 or it can be done with polyurethane waterproofers, such as HYDROSTOP-PU of DUROSTICK, always depending on the use of the roof.

The cumulative effects and the overall result from the application of dB BLOCK is the thermal insulation and waterproofing of the roof surface but also noticeable energy savings.

**Painting and protection system for sports fields (dB BLOCK + SUPER FLOOR PU):** Use it for indoor and outdoor courts, and ensure the safety of athletes and their comfort during sporting activities. Courts such as basketball, volleyball and handball, private and public spaces, schools, hotels etc. The result of the systems' application is the creation of a flexible, comfortable court that is watertight, as well as resistant to everyday use and friction.

**Plumbing installations:** Highly effective in the prevention of sound transmission via plumbing PVC pipes, Jacuzzi (before their installation), heating and air conditioning piping, ventilation and air condition hard as well as flexible ducts, gutters etc. Just coat the exterior of the

pipes/gutters/ducts to dampen the sound effectively.

**Boats-Ships:** It adheres perfectly and ensures sound insulation of all the interior spaces of boats and ships, from the splashing of waves, which penetrates and reproduces along with the vessel haul, reducing the sound by half.

### CLEANING

Clean all tools and hands with lukewarm water and soap.

### CONSUMPTION

1.1kg/m<sup>2</sup>/mm thick coat

### STORAGE

Store in closed containers and normal storing conditions, protected from frost, for at least 18 months from production date.

### SAFETY DIRECTIONS

The product does not require any hazard labeling under current European and national legislation. However, it is recommended, to keep away from the reach of children. If swallowed, seek immediate medical advice and show the container or label.

### PACKAGING

3kg, 10kg, 15kg Containers



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### TECHNICAL SPECIFICATIONS (Measurement conditions 23 °C and 50% R.H.)

<b>Form - Color</b>	Thixotropic paste - Light gray
<b>Bulk density</b>	1.10±0.05kg/lt
<b>Working time</b>	Up to 10 minutes after the initial application
<b>Skin formation</b>	Approximately 20-30 minutes, depending on the weather conditions (temperature, humidity)
<b>Second coat application time</b>	After 5-7 hours, depending on the weather conditions (temperature, humidity)
<b>Curing rate</b>	2mm/day
<b>Final cure time</b>	7 days
<b>Crack Bridging Ability per EN 1062-7</b>	> 2.5mm, Class A5
<b>Permeability <math>S_D</math> to CO<sub>2</sub>, per EN 1062-6</b>	$S_D > 50m$
<b>Water vapour permeability <math>S_D</math> per EN ISO 7783-2</b>	$S_D = 7.38m$ , $5m \leq S_D \leq 50m$ [Class II, water vapour permeable]
<b>Capillary water absorption w per EN 1062-3</b>	$w = 0,02kg/m^2 \cdot h^{0.5}$
<b>Adhesion to concrete per EN 1542</b>	$\geq 1.40 N/mm^2$
<b>Impact resistant per EN ISO 6272-1</b>	60Nm (Class III)
<b>Durable against water and moisture</b>	
<b>Application temperature</b>	From +5°C to +35°C
<b>Temperature resistance</b>	From -40°C to +80°C
<b>Relative humidity of application environment</b>	(23°C, 50% R.H.)
<b>Dilution</b>	Up to 5% with clean water

Odorless

### Thermal Properties Measurement Report of the Department of Physics of the University of Athens:

- Thermal conductivity: 0.2902 w/mK
- Thermal diffusion: 0.2668 mm<sup>2</sup>/S
- Specific heat capacity: 1.091 MJ/m<sup>3</sup>K

CE

DUROSTICK S.A.

ASPROPYRGOS ATHENS PC:193 00

GREECE

19

DoP No.: 143

EN 1504-2

dB BLOCK

Surface protection product

Coating

Permeability to CO<sub>2</sub>:  $s_D > 50m$

Water vapour permeability: Class II (permeable)

Capillary absorption:  $w < 0.1 Kg/m^2 \cdot h^{0.5}$

Adhesion (Pull of test):  $\geq 0.8 N/mm^2$

Artificial weathering: Pass

Reaction to fire: Euroclass F

Dangerous substances comply with 5.3

### DUROSTICK S.A.

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