

## 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.

Laboratory measurements of its soundproofing properties were carried out by the National Research Foundation (Nano Applications Laboratory of the Institute of Theoretical and Physical Chemistry). Certified by the National and Kapodistrian University of Athens/UoA (Building Environment Studies Group, Department of Physics) (Building Environment Studies Group, Department of Physics), in terms of 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.



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- •Small thickness of final coat, 2-3mm
- •Uniform surface without joints or seams
- Absorbs small expansions and contractions of the substrate
- Significantly reduces lateral sound transmission from airborne and impact-related noises
- •It can be painted or lined with carpet, wood flooring, laminate, ceramic tiles, microcement 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 soundabsorbing (acoustic) panels.

### APPLICATIONS

Suitable for application on interior and exterior, vertical and horizontal building surfaces made of plaster or concrete, gypsum board or cement board, wood surfaces and woodwork made of marine-grade 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 and 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 for dB BLOCK of DUROSTICK to adhere 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 achieve 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 trowel (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 SUPER ECO, the ecological emulsion paint of DUROSTICK, available in a wide range of colours. In order to create different decorative styles, apply the microcement in paste form DS-258 DECO MICRO FLEX or the resinous decorative cement mortar of fine finish 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 COLOUR, of DUROSTICK, both available in a wide range of colours. Coat all wall and ceiling surfaces with dB BLOCK to soundproof, waterproof, thermally insulate them and protect them from cracks.



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New or existing gypsum board surfaces: Constructs made of gypsum board, 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 heatinsulating properties. At the same time, it ensures the 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.

Floors made of mosaic, marble, laminate, and hardwood floors, but also for installing tiles of all sizes, over existing tiles or new uncoated, bare floors: dB BLOCK is applied directly as is over the above, sound surfaces, without the need to remove the existing linings, and is smoothed with the straight side of the trowel.

Once thoroughly dried, it is suitable for flexible/deformable adhesives, such as ELASTIC or EXTRA POWER of DUROSTICK. The tiles are grouted with DUROSTICK's DUROGROUT VITREOUS TILE GROUT Fine 1-10mm. It glues wooden floors and linings, laminates, and carpets, without the need for any other adhesive material. Even in newly built constructions or in spaces changing use, dB BLOCK is applied directly over sound cementitious substrates and concrete, without a primer. For these reasons - among others - dB BLOCK evolved into a necessary renovation product.

Microcement application on mosaic floors, ceramic tiles, or new uncoated/bare floors: dB BLOCK precedes any application and acts as a substrate with anti-vibration and crack resistant properties. It follows and absorbs all expansions and contractions of the actual substrate, and at the same time, waterproofs 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 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 systems 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.

PLASTER, or the acrylic-based plaster HYDRO-STOP ACRYLIC PLASTER and HYDROSTOP THERMO

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 thermally 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



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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, thermally 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 protection 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

lean all tools and hands with lukewarm water and soap.

#### **■ CONSUMPTION**

1.1kg/m²/mm thick coat.

### **■ STORAGE**

Store in closed containers and normal storing conditions, protected from frost, for 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 container (on a 100pcs pallet) 10kg container (on a 48pcs pallet) 15kg (on a 24pcs pallet)



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TECHNICAL SPECIFICATIONS (Measurement conditions 23°C and 50% R.H.)	
Form - Color	Thixotropic paste - Light gray
■ Bulk density	1.10±0.05kg/lt
■ Working time	Up to 10 minutes after initial application
Skin formation	Approximately 20-30 minutes, depending on the weather conditions (temperature, humidity)
Second coat application time	After 5-7 hours, depending on the weather conditions (temperature, humidity)
■ Curing rate	2mm/day
Final cure time	7 days
■ Crack bridging ability per EN 1062-7	> 2.5mm , Class A5
■ Permeability SD to CO <sub>2</sub> , per EN 1062-6	SD > 50m
■ Water vapour permeability SD, per EN ISO 7783-2	SD =7.38m, 5m ≤ SD ≤ 50m ( <b>class II</b> , water vapour permeable)
■ Capillary absorption and water permeability w per EN 1062-3	$w = 0.02kg/m^2 \cdot h^{0.5}$
■ Adhesion strength per EN 1542	≥ 1.40 N/mm²
■ Impact resistance per EN ISO 6272-1	60Nm (class III)
■ Durable against water and moisture	
■ Application temperature	From +5°C to +35°C
■ Temperature resistance	From -40°C to +80°C
Relative humidity of application environment	(23°C, 50% R.H.)
■ Dilution	Up to 5% with clean water

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

Thermal conductivity: 0.2902 w/mK
 Thermal diffusion: 0.2668mm²/S

• Specific heat capacity: 1.091 MJ/m³K.

# **DUROSTICK S.A.,**MANUFACTURING OF ADHESIVES,

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