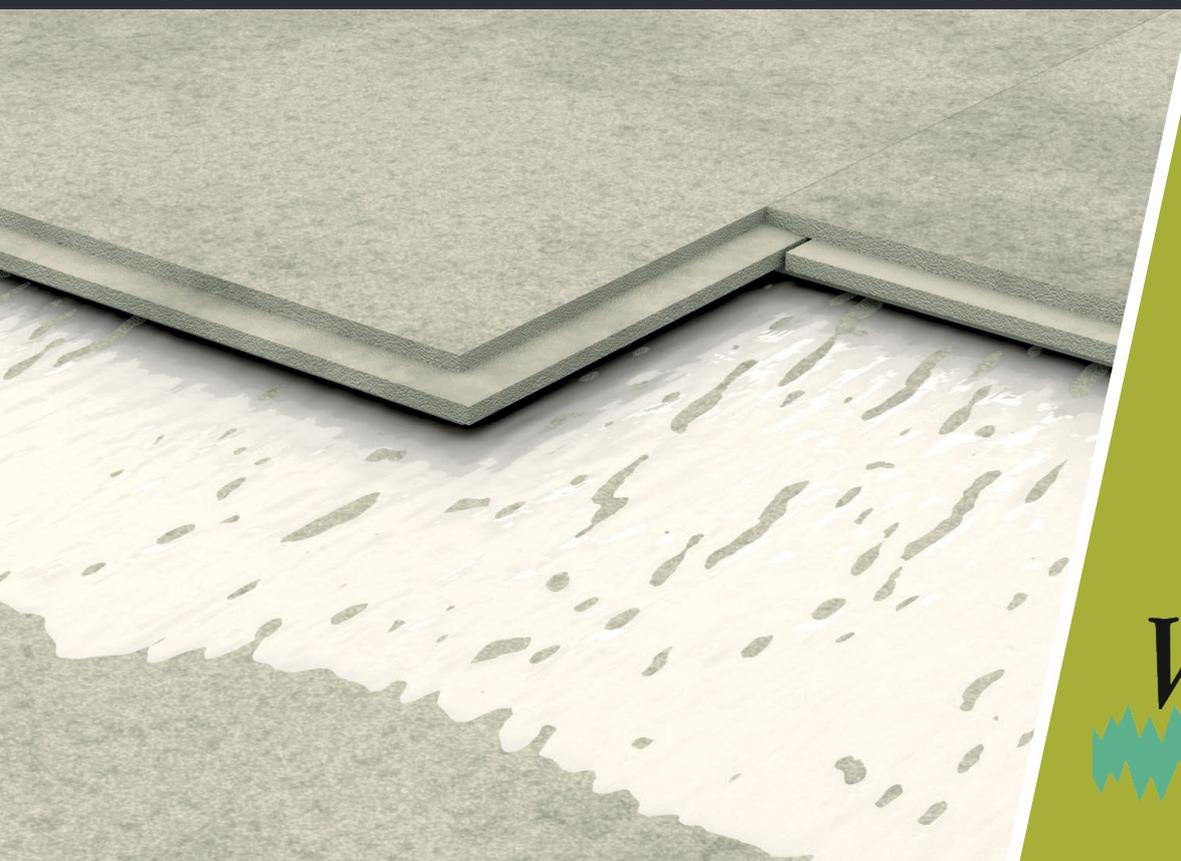


Vibratec Dampening Glue DG-1000



Vibratec[®]
akustikprodukter

Description

A one-component viscoelastic damping layer for constrained layer applications.

The viscoelastic damping material, **DG-1000**, is a one component acrylic compound optimised to give a high composite damping in combination with the base structure and a constraining layer. **DG-1000** can be used in combination with steel, aluminium, concrete floor, MDF, wood and other porous materials.

The high damping loss factor is obtained over a wide frequency and temperature range. The result of an optimized loss factor and shear modulus of the damping material is a big reduction of the structural vibrations and therefore also the radiated sound as well as an increased transmission loss.

Characteristics

Colour:	Whitish
Solvent:	Water
Density (dry)	~ 1560 kg/m ³
Density (wet)	~ 1350 kg/m ³
Viscosity:	Thixotropic
Solid content	~ 70 % by weight
Drying time at 20°C	About 24 hours
Storage:	Can be stored at least 2 years in unopened drums assuming the drums are protected from direct sun light and stored at temperatures between 10-25°C (Protect from frost!)

Drum sizes: About 7kg, 22kg, 270 kg (others on request).

Applications

- Structural damping of floors in bus and rail vehicles, stages and walls.
- Impact damping of floors, e.g. in buildings and trains.
- Increased transmission loss of walls and doors.
- Further more is the glue an excellent solution for loudspeaker constructions.

Damped and suspended concrete floor system with improved impact damping and reduced noise transmission:

A floor construction with concrete elements (such as 200 mm thick hollow "HDF 20" elements) coated with approximately 2 mm damping compound type **DG-1000** and about 50 mm concrete casted onto the **DG-1000**, creates a well damped floor system with reduced impact noise.

In order to further improve the acoustic performance of the floor system the concrete elements may be placed on elastic decouplers (e.g Rubloc), decoupling the floor system from the building.

Example DG-1000 on base structure with concrete constraining layer (left) and as a damping layer on a wooden floor (right):



Installation

Ensure that the surface where the **DG-1000** should be applied is clean and free from grease, dust, or any other dirt.

In order to ensure a good attachment to the structure it is strongly recommended that stainless steel and aluminium surfaces are pre-treated with wash primer and steel surfaces are sand blasted or painted.

Spread out the **DG-1000** to the required thickness (1.5 mm is recommended) on the base structure and place the constraining layer on top. It is important that one of the layers is porous since the water in the **DG-1000** has to dry out.

If the product should be applied between concrete (see graph below), the **DG-1000** is first applied on the base plate/floor and then dried out. The constraining layer of concrete is applied on the dry **DG-1000**. In order to increase the bond to the concrete some sand can be spread out on the wet **DG-1000**.

The working climate should be about 15–30 °C and the surface where **DG-1000** is to be applied should not be warmer than 30°C.

Acoustic Properties

The stiffness ratio between the constraining layers should preferably be 1:3. Best result is obtained with ratio 1:1. **DG-1000** is easy to apply and increases the damping of the base structure which leads to lower vibrations, increased impact damping and less noise radiation.

Equivalent Loss Factor 200 mm concrete + 1.5 mm DG-1000 + 50 mm concrete

