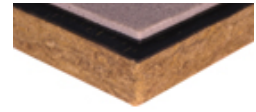


## SONODAN PLUS AUTOADHESIVE

SONODAN PLUS Autoadhesive is a multilayer panel divided in two different layers.



This differentiation allows the counterbalance during the installation, reducing the risk of lack of sealing:

- First layer: formed by cross-linked polyethylene and a high density bituminous sheet finished in a self-adhesive film with non-stick plastic.
- Second layer: formed by a high density bituminous sheet finished in self-adhesive film with non-stick plastic and an absorber panel of mineral wool.

Acoustically, the SONODAN PLUS Autoadhesive is based on the vibration of a membrane resonator (insulation at low frequencies) on elastic material (anti-impact).

### TECHNICAL DATA

TECHNICAL DATA	VALUE	UNIT	STANDARD
Acoustic insulation in local musical solution	65.5	dBa	EN 140-3 EN 717-1
Thickness tolerance	< 5	%	EN 823
Length and width tolerance	< 5	%	EN 822
Membrane density	> 1600	kg/m <sup>3</sup>	EN 845
Density of the porous material	> 80	kg/m <sup>3</sup>	EN 845
Crosslinked polyethylene density	> 25	kg/m <sup>3</sup>	EN 845
Nominal membrane mass	6.5	kg/m <sup>2</sup>	EN 1849-1
Crosslinked polyethylene elasticity module	> 2.5	Kpa	-
Resistance to tearing (nail shank)	> 370	KN/m	EN 12310-1
Tensile strength: longitudinal	> 480	N/5 cm	EN 12311-1
Tensile strength: transversal	> 275	N/5 cm	EN 12311-1
Work temperature	- 20 / + 70	°C	-
Dimensional stability	0	%	EN 13164
Reaction to fire	B s3 d0	Euroclase	EN 13501-01
Bituminous membrane thermal conductivity 10°C	0.130	w/m°K	EN 12667 EN 12939
Textile layer thermal conductivity 10°C	0.041	w/m°K	EN 12667 EN 12939
Cross-linked polyethylene thermal conductivity	0.040	w/m°K	EN 12667 EN 12939
Total thermal resistance	1.05	m <sup>2</sup> K/W	EN 12667 EN 12939

### ADDITIONAL TECHNICAL DATA

In order to show the acoustic properties of the products, DANOSA has made tests with their products. The Sonodan plus Auto-adhesive results are the following:

### STANDARDS AND CERTIFICATION

The acoustic certifications are a consequence of several tests in homologated laboratories.

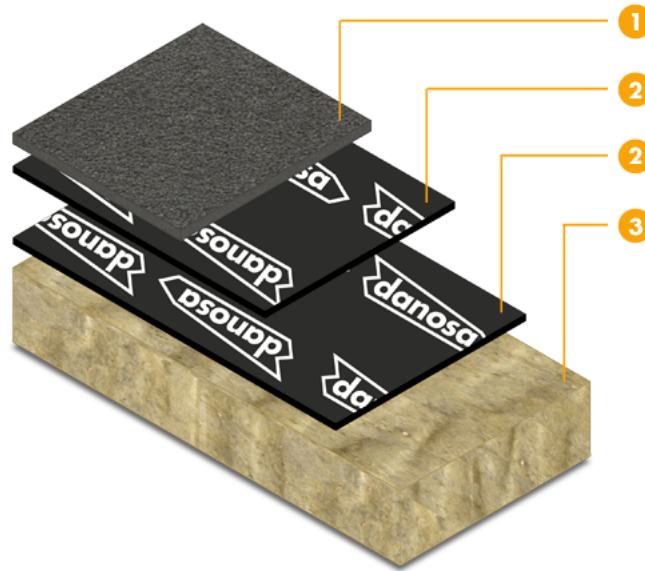
It complies with the Technical Building Code requirements for premises used in machinery rooms according to the DANOSA's Sound Insulation Solutions Catalog, files AA-03; AA-24 y AA32.

Laboratory	Test (EN 140-3)	Result (EN 717-1)
L.G.A.I.	102.669	R <sub>A</sub> = 52.6 dBA
L.G.A.I.	94.004.366	R <sub>A</sub> = 54.4 dBA
LABEIN	B 130-134-H93	R <sub>A</sub> = 62.6 dBA
LABEIN	B 130-134-H94	R <sub>A</sub> = 65.4 dBA

## SCOPE

Acoustic isolation of music venues in tertiary buildings or located in commercial low-rise residential buildings.

It is used in the acoustic treatment of machine rooms in residential buildings or any other place that has the need to behave well to low frequencies noise, in the rehabilitation of walls between different users. And also in new works to increase the insulation in buildings and be able to install high quality audio-visual systems (Home Cinema).



1. Crosslinked polyethylene
2. Acoustic sheet M.A.D. 2 self-adhesive
3. Mineral Wool

## PRESENTATION

PRESENTATION	VALUE	UNIT
Length	1.20	m
Width	1.00	m
Total thickness	40	mm
Polyethylene thickness	6	mm
Membrane thickness	2 + 2	mm
Thickness of panel of mineral wool.	30	mm
Weight	10	kg/m <sup>2</sup>
Panels / pallet	40	ud
m <sup>2</sup> per pallet	48	m <sup>2</sup>
Product Code	610060	-

## ADVANTAGES

- Good behaviour of impulse noises of low frequencies.
- By using a cross-linked polyethylene in the first layer, we make the product attenuate the impulsive noise.
- The combination of membranes forms a resonator that attenuates low frequencies.
- As the first layer is very flexible, it allows continuity in difficult encounters such as corners and pillars. Getting better acoustic insulation at low frequencies.
- Sealing is ensured by installing the second counterweighted layer, improving the insulation at low and medium frequencies.
- Due to its high level of tensile strength it can be installed mechanically.
- The self-adhesive sheets facilitates the placement of the second layer, constituting in this way the membrane resonator, avoiding the inconveniences of gluing and obtaining a higher efficiency in its placement (m<sup>2</sup>/hour/man).
- With little thickness achieves high acoustic performances, leaving the premises with more useful surface.
- Due to its high performance, lighter masonry finishes can be used, making the solution cheaper and its performance.
- Due to the dimensions of the panel it is easier and faster to install on the roof.

## INSTRUCTION FOR USE

### Previous operations:

The vertical and horizontal walls must be plastered with 1.5 cm of plaster. Before applying the product, the plaster must be completely dry. If, for reasons of work speed, it is not possible to wait for the plaster to dry, we recommend using a laminated gypsum formed by N15 plate as a sealant for the wall. The installations that go through the elements once they are insulated will be made a notched prior to the insulation of the wall.

### SONODAN PLUS Autoadhesive installation:

On the SONODAN PLUS Self-adhesive pallet, the first layer of SONODAN PLUS Self-adhesive is placed on top, which is the first to be installed. Below is the second layer, which will be installed once the first layer is fixed.

### On the wall:

The first layer of SONODAN PLUS Autoadhesive is installed against the support, so that it presses the gray polyethylene while the membrane is visible. You can choose two methods to fix the first layer:

#### - Mechanical fixation

It is fixed with staples or fixings for DANOSA Insulation (performance of 4 units per panel). Once the piece is placed squarely with the parameters, one person will hold the upper part, while another will perform the first two mechanical fixings, then one person will be released and the other will continue to apply fixings.

For this, a hammer drill and diamond drill are used, which will perforate both the panel and the partition wall, then insert the cue and present the spike. Finally, the spike is hit with a hammer, being embedded in the material.

#### - Fixation by adhesive

A layer of GLUDAN Acoustic 1 contact adhesive is applied to the wall using a short pile roller.

The performance for a perfect adhesion is 125 gr / m<sup>2</sup>.

In the same way and on a clean surface where the first layer of SONODAN PLUS Autoadhesive has been deposited, another layer is applied with the same performance on the grey polyethylene. Once about 15 minutes have passed the first layer is pasted on the wall. (The total yield is 250 gr / m<sup>2</sup>).

- To start, choose a corner presenting the panel so that the largest dimension (1.2 m) is in height and will be fixed according to the chosen method.

- Next, half of the first layer of SONODAN PLUS Self-Adhesive is put on one wall and the other half on the adjoining wall, in this way it is possible to give continuity to the membrane and the counterbalance of the second layer is easier.

- It continues placing first layer panels so that they are good with the adjacent one. - Remove the non-stick plastic from the first layer of SONODAN PLUS Autoadhesive once fixed to the wall according to the chosen method.

- Present the second layer so that the membranes meet and the mineral wool is seen. \_To start installing the SONODAN PLUS Autoadhesive second layer we remove the non-sick plastic and placing the panel against a corner, so that the smallest dimension (1 m) is in height.

- Press the second layer against the first.

### On roof:

- The first layer of SONODAN PLUS Autoadhesive is installed against the support, so that it presses the grey polyethylene while the membrane is visible. You can choose two methods to fix the first layer:

#### - Mechanical fixation (as described on wall)

#### - Fixation by adhesive (as described on wall)

- To start, choose a corner presenting the panel so that the largest dimension (1.2 m) is in width and will be fixed according to the chosen method.

- Then, half of the first layer of SONODAN PLUS Autoadhesive is put on one wall and the other half on the ceiling, in this way the membrane is given continuity and the second layer is counterbalanced.

- It continues to place panels of the first layer so that they are to test with the adjacent. - Remove the non-stick plastic from the first layer of SONODAN PLUS Autoadhesive once fixed to the wall according to the chosen method.

- Present the second layer of SONODAN PLUS Self-adhesive so that the membranes meet and the rock wool is visible.

- To start installing the second layer of SONODAN PLUS Self-adhesive start by removing the non-stick plastic and placing the panel against a corner, so that the smallest dimension (1 m) is in length.

- Then press the second layer against the first one. For security this second layer of SONODAN PLUS Autoadhesive is fixed with fixings for DANOSA Insulation, its performance being 1 unit per panel. \_Note: DPS: Manual Implementation of Acoustic Insulation. Details of Singular Points.



1. Stick the first layer
2. Remove non-stick paper.
3. Remove non-stick paper 2nd layer.
4. Stick the second layer to flashings.

## INDICATIONS AND IMPORTANT RECOMMENDATIONS

- The contact tails used to stick the product must have little solvent content, because if not they can affect the factory bonding. - On the roof, the shock absorber bell can be used as additional fixation.

- In order that the obtained result (acoustic performance) is influenced as little as possible by the constructive solution, the following considerations must be taken into account: - The plastering of façade in building must end in the dividing wall between different users. See DPS 2.1 – Impact noise insulation must be used. See Manuals of Acoustic Insulation Solutions from AA01-AA04. - If the heating installations were central or of water intake, decoupling by cross-linked polyethylene shell of the same. See DPS 1.2 - The floating ceiling cannot be drilled with installations proposed in commercial premises. See DPS 4.4 and tabs AA32 and AA33 - The partitions must have a plaster of at least 1 cm. See DPS 3. - Do not anchor the partitions to structural elements (except roof in homes) such as pillars and facades. To maintain the stability of the system, the transom element must be encased in the interior floating partitions. - The evacuation facilities that run through the commercial premises, must be isolated with ACUSTIDAN (see file AA51) and protected with constructive elements. The steps of installations sealed with high density resilient materials. See DPS 1.2 - Never connect the smoke outlets to the ventilation chimneys. - Do not drill with installations the floating roof in solution of commercial premises. Create technical sockets for electrical panels that are located on walls. See DPS 2.3 and DPS 4.4 - If you use a battery drilling machine (never with an electric cable connected to a network), you can wet the drill in water. This prevents the drill from becoming embedded with the asphalt. - It will be taken into account that this product is part of an acoustic insulation system, so the DANOSA Constructive Solutions Catalogue must be taken into account. Tabs AA15, AA24, AA25, AA32 and AA33., Implementation of Acoustic Insulation. Details of Singular Points (DPS), as well as the rest of the DANOSA documentation.

## HANDLING, STORAGE AND CONSERVATION

- Store in covered and ventilated places that comply with the current laws regarding the storage.
- Personal protection is not required during transportation and handling. In the application should take the appropriate measures regarding the machinery manipulation (mechanical fixation) or adhesives application via solvent.
- In the application and, especially in closed places or during the execution of an operation involving the dust production, appropriate measures should be taken using P1 masks, protective goggles and gloves. Wear wide clothes and with closed fists.
- Stable at room temperature. Avoid being at temperatures above 80 ° C, alter the properties of the material accelerating its degradation.
- The product, as such, is not classified as dangerous. It is not toxic to the environment.\_- Transport preferably in complete and packed pallets in order to avoid possible alterations of the product during transport.
- The mineral wool of this product are exempt from the carcinogenic classification of the substances in the terms of note Q of Directive 97/69 / EC.
- In all cases, the current standards of good practices in Health and Safety in the construction sector must be taken into account.
- Check the product's technical sheet on safety.
- For further information, please contact our technical staff.

## WARNING

The information contained in this document and any other advice provided, are given in good faith, based on DANOSA's current knowledge and experience when products are properly stored, handled and applied, in normal situations and in accordance with the recommendations of DANOSA. The information applies only to the application (s) and the product (s) to which reference is expressly made. In case of changes in the parameters of the application, or in case of a different application, consult the DANOSA Technical Service before using the DANOSA products. The information contained herein does not exonerate the responsibility of the building agents to test the products for the application and intended use, as well as their correct application in accordance with current legal regulations.

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