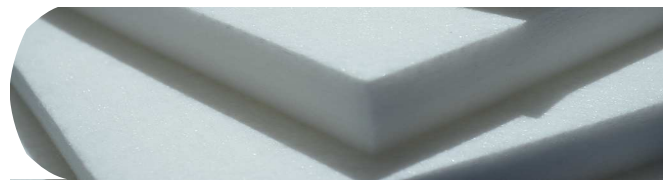


# ACOUSTIC POLYESTER

Model dB-POLY



## dB - POLY

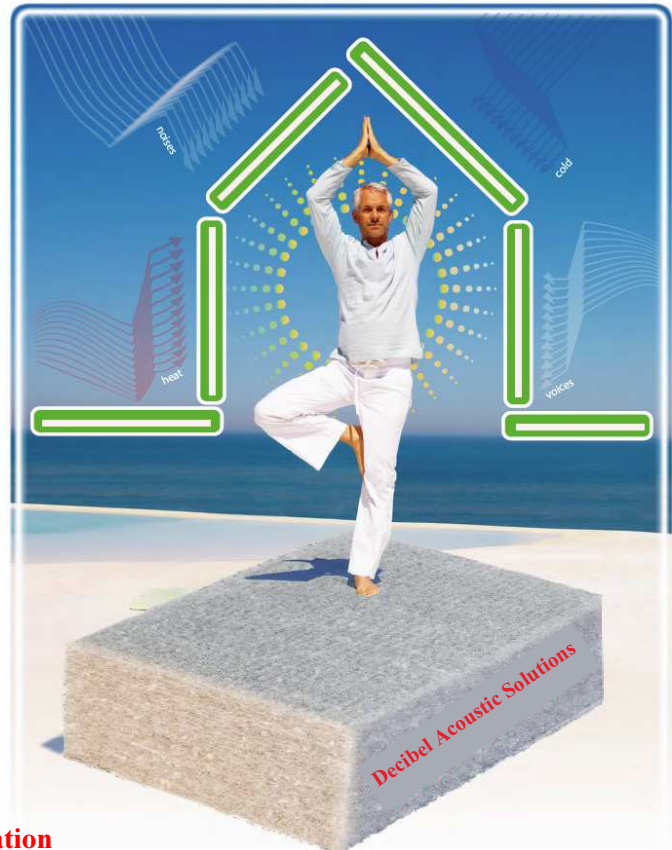


## The last generation of Thermo-Acoustic Insulation



### Our technology is your Business!

Technological envelope is planned by us with policy oriented to research and innovation, through our manufacturing partner facility, We are able to produce several kind of green products suitable for different applications, to satisfy the international market. Some of these applications are for Thermo - Acoustic insulation in buildings, Industrial and Many fields.



### dB POLY Thermoacoustic insulation of the last generation

dB POLY is a panel made from 100% polyester fibers via thermo-mechanical processes (carding, lapping, heat-bonding), designed by the Thermoacoustic Division of our co partner manufacturer facility under our guidance and recommendations.

### dB POLY's main characteristics are the following:

1. High thermal and acoustic insulation.
2. No fibers or polluting substances released, dangerous for humans or environment.
3. Class 1 inflammability.
4. High dimensional stability (even after a lot of deformation cycles), and easy to process and manufacture, that make it suitable for a wide range of forms and applications
5. Available in different densities and thicknesses. These performances make dB POLY versatile and suitable for a lot of applications, as:
  - In buildings: false ceilings, partitions, walls and floors, where a combination of thermal and acoustic insulation is needed;
  - in transports: thermal and acoustic comfort for automotive products and carriages (by railway, aircrafts and ships);
  - in industries: acoustic insulation for machineries and offices;
  - In the entertainment: acoustic insulation for recording rooms, body and athletics center, dancing rooms, discos, etc.

Call us to discuss your requirements for noise control, and know how to employ the Model dB-POLY Acoustic Barrier to control your noise problems.

# ACOUSTIC POLYESTER

Model dB-POLY



## TECHNICAL SPECIFICATIONS

- Polyester fibers panel
- Standard sizes for panels: 300 to 3000 mm width, 300 to 3000 mm length, 10 - 60 mm thickness (also available in non-standard sizes, on request).
- Density: 10 - 100 kg/m<sup>3</sup>.
- Temperature range of use: -50 - 120 °C, characteristics are maintained up to 125 °C.
- High deformability and workability, even after a lot of deformation cycles (high impact strength).
- Good acoustic performances (see diagrams 1 e 2).
- Good thermal performances (see diagram 3).

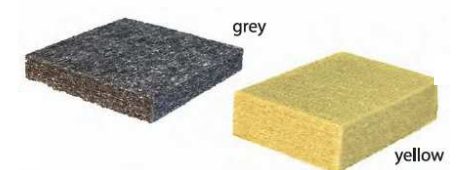


## CHEMICAL, PHYSICAL AND MORPHOLOGICAL SPECIFICATIONS

- Chemical composition: 100% polyester.
- Components: polyethylene-terephthalate (PET), polybutylene-terephthalate (PBT). (Non-dangerous substances, according to D.M. 16/02/93 of the Italian Ministry of Health).
- Melting point: about 250 °C.
- Average diameter of fibers: 17 Dtex.
- • Average length of fibers: 50 mm.
- Resistant to chemical substances (acids, salts, hydrocarbons) and poor solubility in chlorinated solvents.
- Resistant to fungi, bacteria, insects, micro-organisms, it doesn't decay.

## INFLAMMABILITY INFORMATIONS

- Inflammability: class 1.
- No emission of toxic or opaque fumes (AFNOR F1 16-101).
- Combustion products: CO<sub>2</sub>, CO, H<sub>2</sub>O.
- Fire extinction with: CO<sub>2</sub>, H<sub>2</sub>O, foam.

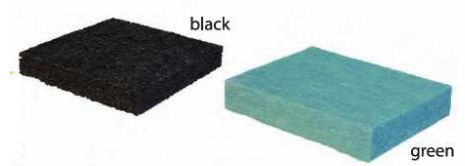


## ENVIRONMENTAL INFORMATIONS

- 100% recyclable, it does not contain any other material different from polyester.
- No weight or fibers loss during processing, transportation and installation.
- Odorless.
- No micro-pollutants emissions.

## WATER AND STEAM INFORMATIONS

- Made of water-repellent fibers.
- Permeable to steam, allows walls and partitions transpiration.



## GUARANTEED QUALITY

Decibel has promoted a research project, in collaboration with many Universities which was intended to study and define a new product to be used for thermal and acoustic insulation. This project, ended with excellent results, brought to dB POLY, that showed to have physical and mechanical features suitable for most of applications where are requested both thermal and acoustic insulation. Studies have been developed on the following subjects:

- Fabric stability and material design.
- Steam saturation.
- Liquid water absorption and desorption.
- Thermal conductivity and Acoustic absorption.

Call us to discuss your requirements for noise control, and know how to employ the Model dB-POLY Acoustic Barrier to control your noise problems.

# ACOUSTIC POLYESTER

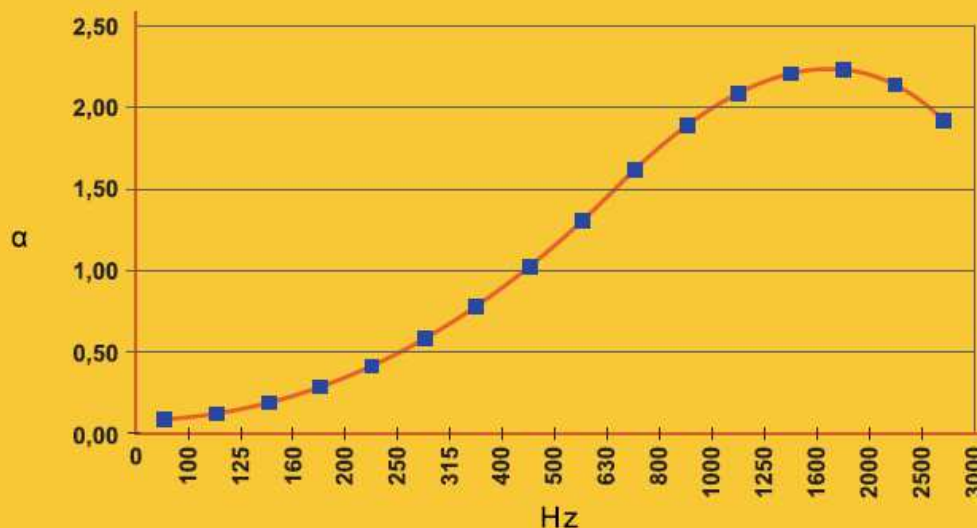
Model dB-POLY



## Technological properties

Temp. Range of use	Melting point (polyester)	Thermal insulation (T. conductivity)	Acoustic insulation	Absorption insulation
- 50 ÷ 120 °C	250 °C	till $\lambda = 0,034$ W/mK	till $\alpha = 1$ [500 Hz]	till 40 dB

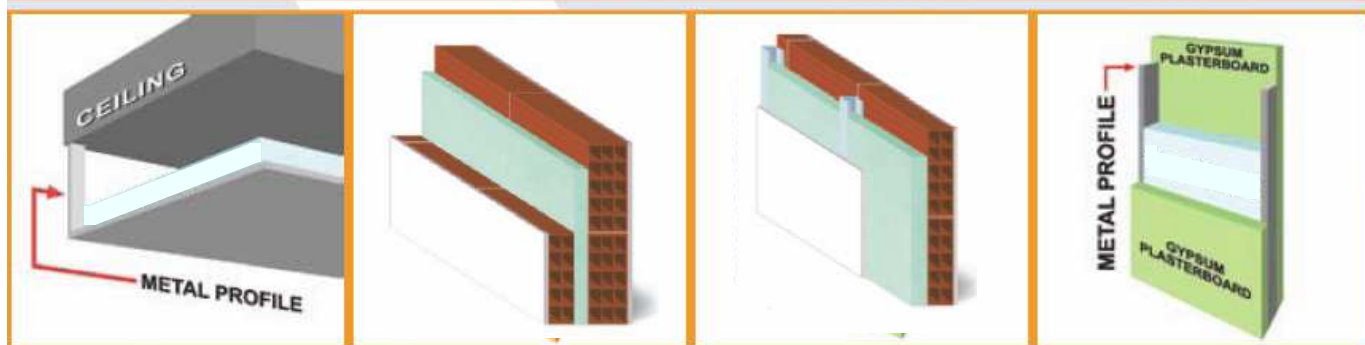
## Acoustic absorption trend



## Certificates

Reaction fire class	Reaction fire class	CE - RINA	Reaction smoke class	ECOLABEL
Class 1 (UNI 9177)	M1 (NF P 92-501/504/505)	Compliant to MED (2002/75/EC)	F1 (AFNOR 16-101)	ECOLABEL Mark

## Applications



Call us to discuss your requirements for noise control, and know how to employ the Model dB-POLY Acoustic Barrier to control your noise problems.

# ACOUSTIC POLYESTER

Model dB-POLY



## Plain Board



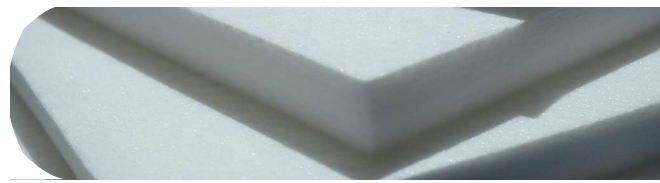
Package	
PANEL	ROLL
1000 X 2000 mm – H <sub>max</sub> package = 50 cm	Width 60 / 120 cm
2000 X 2500 mm – H <sub>max</sub> package = 50 cm	Length till 50 m

Features									
Thickness (tolerance ± 2 mm)									
	20	30	40	50	60	70	80	90	100
Density (tolerance ± 5 %)	20	•	•	•	•	•	•	•	•
	30	•	•	•	•	•	•	•	•
	40	•	•	•	•	•	•		
	50	•	•	•	•	•			
	60	•	•	•	•	•			
	70	•	•	•	•				
	80	•	•	•					
	90	•	•						
	100	•							

Call us to discuss your requirements for noise control, and know how to employ the Model dB-POLY Acoustic Barrier to control your noise problems.

# ACOUSTIC POLYESTER

Model dB-POLY



Panel Coupled with polyethylene skin



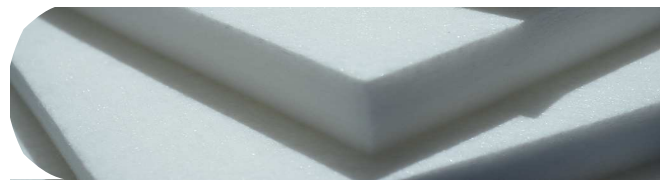
Package	
PANEL	ROLL
60 X 60 mm – 80 pieces / package	Width 60 / 120 cm
60 X 120 mm – 80 pieces / package	Length 30 m 1 roll / package

Features									
Thickness (tolerance $\pm 2$ mm)									
	20	30	40	50	60	70	80	90	100
Density (tolerance $\pm 5$ %)	20	•	•	•	•	•	•	•	•
	30	•	•	•	•	•	•	•	•
	40	•	•	•	•	•	•	•	•
	50	•	•	•	•	•	•	•	
	60	•	•	•	•	•	•		
	70	•	•	•	•	•			
	80	•	•	•	•				
	90	•	•	•					
	100	•	•	•					

Call us to discuss your requirements for noise control, and know how to employ the Model dB-POLY Acoustic Barrier to control your noise problems.

# ACOUSTIC POLYESTER

Model dB-POLY



**Panel Coupled with Aluminium wired skin**



Package	
PANEL	ROLL
60 X 60 mm – 80 pieces / package	Width 60 / 120 cm
60 X 120 mm – 80 pieces / package	Length 30 m 1 roll / package

Features									
Thickness (tolerance $\pm 2$ mm)									
	20	30	40	50	60	70	80	90	100
Density (tolerance $\pm 5$ %)	20		•	•	•	•	•	•	•
	30		•	•	•	•	•	•	•
	40		•	•	•	•	•	•	•
	50		•	•	•	•	•	•	•
	60		•	•	•	•	•	•	•
	70		•	•	•	•	•	•	•
	80		•	•	•	•	•	•	•
	90		•	•	•	•	•	•	•
	100		•	•	•	•	•	•	•

**Panel Coupled with one side adhesive covered with protective siliconized paper**



Package	
PANEL	ROLL
60 X 60 mm – 80 pieces / package	Width 60 / 120 cm
60 X 120 mm – 80 pieces / package	Length 30 m 1 roll / package

Call us to discuss your requirements for noise control, and know how to employ the Model dB-POLY Acoustic Barrier to control your noise problems.

# ACOUSTIC POLYESTER

Model dB-POLY



## dB - ISO POLY



dB ISO POLY is a non woven fabric made with 100% polyester fiber needle-punched. It is normally used to provide adequate noise absorption when placed or adhered behind a perforated substrate and to prevent the transmission of impact noise when used in floors by creating a floating floor system.

### dB ISO POLY's main characteristics are the following:

- Acoustic absorption and insulation properties.
- No fibers or polluting substances released, dangerous for humans or environment.
- Class 1 inflammability.
- High resistance to elongation break.
- Available in different densities and thicknesses.

### TECHNICAL SPECIFICATIONS

- Non woven polyester fiber roll.
- Standard sizes for rolls: 300- 3000 mm width, 100-500 m length, 1 - 6 mm thickness (also available in non-standard sizes, on request).
- Mass per unit area: 20 - 500 g/m<sup>2</sup>. Customization is also available upon request.
- Temperature range of use: -50 -120 °C, characteristics are maintained up to 125°C.

### CHEMICAL, PHYSICAL AND MORPHOLOGICAL SPECIFICATIONS

- Chemical composition: 100% polyester
- Components: polyethylene-terephthalate (PET), polybutylene-terephthalate (PBT). (Non-dangerous substances, according to D.M. 16/02/93 of the Italian Ministry of Health)
- Melting point: about 250°C; • Average diameter of fibers: 17 Dtex
- Average length of fibers: 50 mm
- Resistant to chemical substances (acids, salts, hydrocarbons) and poor solubility in chlorinated solvents
- Resistant to fungi, bacteria, insects, micro-organisms, it doesn't decay.

### INFLAMMABILITY INFORMATIONS

- Inflammability: class 1.
- No emission of toxic or opaque fumes (AFNOR F1 16-101).
- Combustion products: CO<sub>2</sub>, CO, H<sub>2</sub>O.
- Fire extinction with: CO<sub>2</sub>, H<sub>2</sub>O, foam.

### ENVIRONMENTAL INFORMATIONS

- 100% recyclable, it does not contain any other material different from polyester
- No weight or fibers loss during processing, transportation and installation
- Odorless
- No micro-pollutants emissions.

### WATER AND STEAM INFORMATIONS

- Made of water-repellent fibers
- Permeable to steam, allows walls and partitions transpiration.

Call us to discuss your requirements for noise control, and know how to employ the Model dB-POLY Acoustic Barrier to control your noise problems.

# ACOUSTIC POLYESTER

Model dB-ISO POLY



## ISO POLY



### Package

#### ROLL

Max Width 300 cm

Length till 300 m



### Features

Thickness mm (tolerance  $\pm 5\%$ )

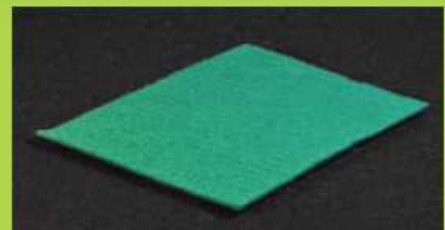
		0,5	1,0	1,5	2,0	2,5	3,0	3,5	4,0	5,0
g/m <sup>2</sup> (tolerance $\pm 5\%$ )	50	•								
	100	•	•							
	150		•	•						
	200			•	•					
	250				•	•				
	300					•	•			
	350					•	•	•		
	400						•	•	•	
	450							•	•	
	500								•	•

### Other colours most requested

#### BLACK



#### GREEN

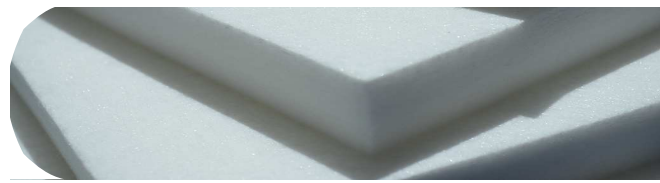


Call us to discuss your requirements for noise control, and know how to employ the Model dB-ISO POLY Acoustic Barrier to control your noise problems.

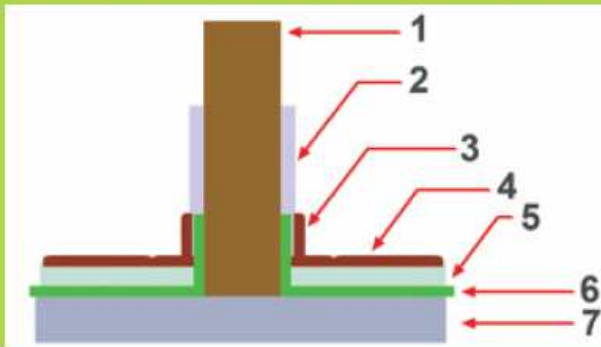


# ACOUSTIC POLYESTER

Model dB- ISO POLY

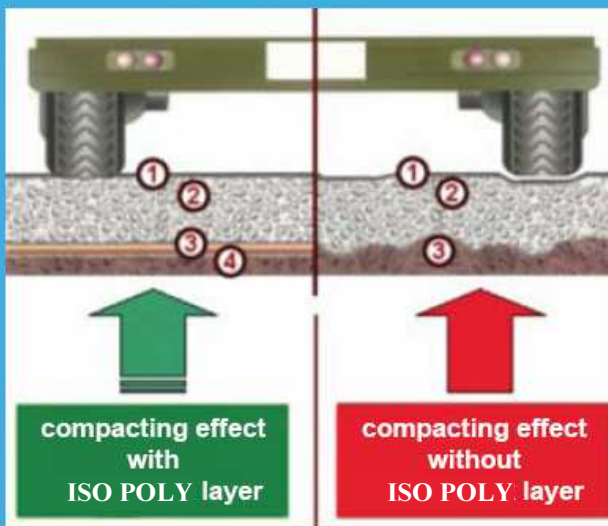


## Applications



- 1 - perimetral wall
- 2 - plaster
- 3 - skirting
- 4 - floor
- 5 - concrete screed
- 6 - ISO POLY
- 7 - ceiling

## Applications



compacting effect  
with  
ISO POLY layer

compacting effect  
without  
ISO POLY layer



Call us to discuss your requirements for noise control, and know how to employ the Model dB-ISO POLY Acoustic Barrier to control your noise problems.