

# SOLUTIONS FOR SOUND INSULATION AND NOISE ABSORPTION



## GENERAL CATALOGUE

ENGLISH VERSION



#### THE COMPANY AND THE INDUSTRIAL GROUP



### SOUNDPROOF MATERIALS AND Sound insulation systems

Meteor was founded in 1988, and, at that time, it was one of the first Italian companies to specialise in manufacturing and distribution of sound-attenuation and sound-absorption products.

Mainly operating in the north-eastern region of Italy, Meteor collaborates on major projects and special tenders, also abroad, with government bodies.

Through the Visa SpA Group, the company has also successfully penetrated some Middle Eastern, Asian and Southeast Pacific markets, achieving positive results in many areas.

A wide range of sound-absorption, sound-attenuation and sound-insulation materials (ashlar, pyramid and smooth types coupled with lead material and charged rubber) is always available in the spacious warehouse located in Ponte di Piave (TV- Italy). In the company headquarters, different samples of products are displayed to show all the possible shapes and fields of application.

Prompt delivery and highly efficient logistic support make Meteor one of the most appreciated and reliable companies in the sector.

On request, Meteor can supply pre-cut and pre-shaped materials according to customer specifications.



**BRANDS BELONGING TO THE GROUP** 



Generating set hire



Irrigation and motor pumps







Generating sets

Generating set hire

Soundproofed and customised containers

**ELH 5.**2



#### CUSTOMER SERVICE AND CERTIFICATIONS

#### **TECHNICAL CONSULTANCY AND SUPPORT**

Acoustic wellness in private homes, schools, places of work, machines, industrial plants, and public transport in many sectors, is a fundamental aspect to consider in the design phase. Thanks to the highly qualified technical support and to the wide range of products, Meteor is able to solve all the problems regarding noise pollution and sound quality, responding to the diverse needs of customers while respecting time schedules and complying with current regulations.



#### **CUSTOMER SERVICE**

Prompt reaction in terms of support and service towards the customer's needs is a fundamental aspect of our job. Young and highly qualified personnel contribute to making Meteor a dynamic and cuttingedge company able to compete with professionalism in a market that is increasingly demanding. We always put customer needs first as this is our primary goal in every business transaction.

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#### **HIGH QUALITY SERVICE**

Prompt delivery combined with the efficient logistic services provided to the customers, allows Meteor to be one of the most qualified and reliable companies in this sector.

#### CERTIFICATES AND DOCUMENTATION AVAILABLE

Every single item comes with a technical data sheet detailing the composition and the technical features. All products go through rigorous testing and are certified for the different types of applications and the various operating uses.











The highly qualified technicians at Meteor are specifically trained for all aspects of environmental acoustics. They carry out all the necessary phonometric tests, measuring the sound levels and verifying that they fully meet the requirements of current standards. In addition, they conduct surveys, design and fulfil environmental reclamations, and draft evaluation reports on the acoustic impact.





#### **AREAS OF PRODUCT APPLICATION**

#### SOUND INSULATION FOR SHIPBUILDING AND MARINE INDUSTRY SECTOR

The environmental comfort is becoming an important requirement in designing large and medium sized leisure boats.

The specific problems connected to the thermal and sound isolation in the naval sector, have always been completely different and much more demanding, in terms of design, from those in the traditional housing construction.

In order to solve that, Meteor has come up with innovative solutions through recyclable products, free from hazardous substances, that totally complies with the current laws and regulations relating to the noise control on board.

All Meteor products, that has been specifically developed for shipbuilding and marine sector, are ideal for thermal/acoustic insulation and fireproof walls, as well as for cold and warm pipes, exhaust pipelines and air-conditioning equipment and ducts.

#### SOUND INSULATION FOR THE INDUSTRIAL SECTOR

The primary objective of the industrial soundproofing must always be the improvement of the working conditions and of the environmental comfort. In doing that, the whole organization results to be much more productive and efficient, reducing the management costs.

The industrial soundproofing implies very specific requirements and Meteor products help achieve these objectives.

Thanks to the wide range of products it becomes easy to avoid the vibrations produced by the sound shock wave and to improve the acoustic insulation.

#### SOUND INSULATION FOR MUSIC SECTOR, LEISURE AND PUBLIC AREAS

Very often, music practice rooms, studio recording rooms, concert rooms and theaters, as well as public premises such as hotels, restaurants, bars and pubs, discos, gyms and wellness centers, have to cope with specific problems referred to the noise level generated by musical instruments, equipment or directly by people themselves.

Meteor grants reliability in solving these kind of problems, by providing specific and tailor-made solutions, putting the utmost attention to identify the weakest aspects in the acoustic environment, in particular doors and windows. The highly professional staff is always focused on the most suitable solutions in terms of performance and cost effectiveness. Every single project is developed in accordance to the customer's needs and requirements, in order to support him with the best possible result ever.

#### SOUND INSULATION FOR CONSTRUCTION AND BUILDING SECTOR

Acoustic pollution represents a risk for public health and it undoubtedly affects people's quality of life, notwithstanding the fact that people has developed the capacity to rapidly adapt to the more common noises, considered unavoidable, such as the stomping feet coming from the floor above, or the noise generated by moving the furniture in the apartment next door, or the one produced by the neighbors' television, the music played at high volume or even the noise coming from the external traffic or living close to factories and productive areas.



The solution to protect against these kind of risks is the installation of sound-absorption and soundattenuation panels.

Meteor can provide a wide range of products, specifically design for the construction and building sector, in reply to the constantly growing interest for the acoustic issues (mainly due to the Decree of the President of the Council of Ministers D.P.C.M. 5/12/97 – Determining the acoustic passive requirements of buildings). From one side, it increases the environmental health and safety and, on the other side, it sensibly improves the energy efficiency and the plant's level of performance.





#### **SOUND ABSORPTION**



#### POLYESTER-BASED POLYURETHANE SOUND ABSORPTION MATERIALS

**Specifications for noise absorption.** This product is composed of self-extinguishing and non-dripping, open-celled, flexible polyurethane foam with a density of 25 and 30 kg/m<sup>3</sup> and fully complies with UL 94 HF1 standards.

It is a charcoal grey colour. The material can be produced in standard foam or with special surface finishes such as: an anti-oil/water or dust protective film, faux leather, aluminium film.



#### **SMOOTH TYPE**

For noise absorption in rooms, engine compartments, lock-ups, machine insulation, waste containers and many other applications. It is also largely used for air duct acoustic isolation as it is especially suitable for the absorption of middle and high frequencies.

Available in the following thickness: 6 - 10 - 15 - 20 - 25 - 30 - 40 - 50 mm Sizes: 2.00 x 1.00 m in sheets or rolls (height 1.00/1.50 m) The material is also available with adhesive on one side.



#### **ASHLAR TYPE**

For noise absorption in rooms, engine compartments, lock-ups, machine insulation, waste containers and many other applications as it is particularly suitable for the absorption of middle and high frequencies. Available in the following thickness: 25 - 30 - 40 - 50 mm Sizes:  $2.00 \times 1.00$  m – in sheets or rolls (height 1.00/1.50 m) The material is also available with adhesive on one side.



#### **PYRAMID TYPE**

For noise absorption or acoustic containment in gyms and wellness centres, meeting rooms, shooting ranges, studio recording rooms, offices and many other applications as it is especially suitable for the absorption of high frequencies. Available in the following thickness: 50 - 70 - 100 mm with a pyramid base measuring  $50 \times 50$  mm Sizes:  $2.00 \times 1.00$  m – in sheets The material is also available with adhesive on one side.



Internal insulation in a testing laboratory



Insulation in a radio recording studio



### SOUND DAMPING AND SOUND INSULATION



#### DAMPING AND SOUND INSULATION MATERIALS

**Sound damping materials:** used to reduce vibrations caused by noise. They are composed of special charged rubber that considerably increases the specific weight.

**Sound insulation materials:** this range of products is used to prevent noise from passing over the product itself. Results are obtained by sandwiching one or more lead sheets in the middle.



#### LEAD TYPE

This product, whose mass is obtained by inserting a lead sheet with a 0.35/0.5 mm thickness, is normally used to reduce noise transmissions caused by stomping feet, to increase sound insulation in dividing walls, or to insulate water pipes or other piping systems and tubes as it is particularly suitable for absorbing low frequencies.

Available thickness: 6 - 15 mm Sizes: 2.00 x 1.00 - 3.00 x 1.00 m – in sheets This product is also available with adhesive on one side.



#### **"SOUNDFLEX" CHARGED RUBBER**

This visco elastic acoustic insulation is composed of EPDM charged plasticizers. It has a high density mass of 4, 6, 7.5 kg/sq. and it is self-extinguishing, as required by UNI-ISO 3795 standards. It is mainly used to reduce noise vibrations and, if properly coupled, it also reduces noise transmissions caused by stomping feet and increases sound insulation in wall partitions. It is used for silent canopies to eliminate vibrations caused by sound shock waves and to improve acoustic insulation as it is particularly suitable for absorbing low frequencies. Available in the following thickness: 2 - 3 - 3.75 mm - Sizes: in rolls (height 1.00 - 1.20 m). This material is also available with adhesive on one side.



#### **"MAPFLEX" CHARGED RUBBER**

This visco elastic acoustic insulation is composed of EPDM and EVA charged plasticizers. It has a high density mass of 4, 6, 8, 10 kg/sq., Class 1 fire reaction, smoke emission and smoke toxicity. It is mainly used to reduce noise vibrations and, if properly coupled, it also reduces noise transmissions caused by stomping feet and increases the insulation in wall partitions. It is used for silent canopies to eliminate vibrations caused by sound shock waves and to improve acoustic insulation as it is particularly suitable for absorbing low frequencies. Available in the following thickness: 2 - 3 - 4 - 5 mm; Sizes: in rolls (height 1.00 m). This material is also available with adhesive on one side.



Floor acoustic insulation



Soundproof canopy



### SOUND ATTENUATION AND SOUND ABSORPTION



#### SOUND ATTENUATION AND SOUND ABSORPTION MATERIALS

This kind of material is specifically used to absorb noise and as a noise barrier. This product is composed of different layers of self-extinguishing and non-dripping polyurethane foam with a density of 25 and 30 kg/m<sup>3</sup> and complies with UL 94 HF1 standards. Its cellular structure and weight are different from the common polyurethane foam. This material is composed of one or more lead-sheets, or alternatively, charged rubbers with very high specific weight in order to act as a sound wave barrier.





This product, whose mass is obtained by inserting one or more lead sheets with a thickness measuring 0.35/0.5 mm, is normally used to impede noise transmissions in wall partitions or in soundproofed canopies where noises with different frequencies are present as it is ideal for use in sound-absorption and sound-attenuation of middle and low frequencies.

The ashlar type is available in the following thickness: 019 (6PU+Pb+25 PU Ashlar=31 mm) - The smooth type with protective film is available in the following thickness: 050 (6PU+Pb+12 PU film = 18 mm) The smooth type with aluminium film is available in the following thickness: 024 (6PU+Pb+12 PU film+alum.= 18 mm)



#### SOUNDFLEX AND MAPFLEX CHARGED RUBBER MATERIALS

These products, with a high density mass 4 - 6 - 8 kg/m<sup>2</sup> obtained by inserting one or more sheets of rubber, are mainly used to eliminate noise transmissions in wall partitions as it is particularly suitable for sound-attenuation of middle and low frequencies.

Available in the following thickness: 040 (6PU + 2 Soundflex + 25PU = 33 mm) - 039 (6PU + 2 Soundflex + 12PU = 20 mm) - 043 (6PU + 2 Soundflex + 25 PU Ashlar = 33mm) - Sizes : 2.00 x 1.00 m – in sheets

This material is also available with adhesive on one side and with special surface finishes.



#### LEAD COMPOSED MATERIALS

This product, whose mass is obtained by inserting one or more lead sheets with a thickness of 0.35/0.5 mm, is normally used to eliminate noise vibrations and transmissions in wall partitions as it is particularly suitable for absorbing middle and low frequencies.

Available in the following thickness: 001 (6PU+Pb+25PU = 31 mm) 002 (6PU+Pb+6PU+Pb+12PU = 24 mm) 003 (6PU+Pb+12PU = 18 mm) Sizes: 2 x 1 m - in sheets This material is also available with adhesive on one side.



Genset soundproofed canopy



Sound-proof protection for a mill





#### **CLASS 1 MELAMINE SOUND-ABSORPTION MATERIALS**

**Material specifically used for noise absorption.** This product is composed of a low specific weight melamine resin that has an extremely high level of absorption. The material is fire retardant and falls into Class 1 fire reaction in accordance with test method C.S.E. RF2/75/A-RF3/77.



#### SMOOTH, ASHLAR AND PYRAMID TYPES

These materials come in a wide range of shapes and sizes, in ashlar, pyramid or smooth type. They are often used for acoustic correction in gyms and wellness centres, meeting rooms, shooting ranges, studio recording rooms, offices and many other applications as they are especially suitable for the absorption of high frequencies. Light grey. Available in the following thickness:

Ashlar: 30 - 50 mm Smooth: 10 - 20 - 30 - 40 - 50 - 60 mm Pyramid: 50 - 70 mm Sizes: 600 x 600 mm - 1200 x 600 mm – in sheets. Specific adhesive for fixing is available.



Acoustic correction inside a school canteen



Acoustic correction inside a classroom



Acoustic correction inside a meeting room



Acoustic correction inside a restaurant



**SOUND-ABSORPTION** 



#### POLYESTER TEXTILE-FIBRE SOUND ABSORPTION MATERIALS

**Specific material for sound absorption.** This material is composed of polyester textile Thermos-bonded fibres and does not make use of resins or glues. It comes with a density of 40 kg/m<sup>3</sup> or 50 kg/m<sup>3</sup>. Besides the high level of noise absorption, this kind of material is fire retardant and falls into Class 1 fire reaction in accordance with test methods UNI8457 (1987) - UNI8457/A1 (1996) (CSE RF2/75/A¬UNI9174/A1 (1996) (CSE RF 3/77). It is available in both black and white.



It is particularly suitable for soundproofing and noise absorption in rooms, engine compartments, lock-ups, canopies, waste containers and in all applications that require a high level of fire protection as it is particularly suitable for absorbing medium and high frequencies.

Available in the following thickness: Smooth Soundfil 10 - 20 - 30 - 40 - 50 mmSizes: in rolls (height 1.00 m) and in sheets  $1.50 \times 1.00 \text{ m}$  or  $2.00 \times 1.50 \text{ m}$ This material is also available with adhesive on one side and with different surface finishes, such as: non-woven water and oil resistant fabric, aluminium, glass-fibre fabric.



Inverter case acoustic insulation



Industrial plant acoustic reclamation



Acoustic insulation of internal wall partitions on a yacht



Acoustic intervention inside a public place



## SOUND DAMPING AND SOUND INSULATION



#### **CLASS 1 SOUND ATTENUATION AND SOUND ABSORPTION MATERIALS**

**Specific material for sound attenuation and sound absorption.** This material is composed of polyester textile thermobonded fibres and does not make use of resins or glues. It comes with a density of 40 kg/m<sup>3</sup> and a high specific weight. This product has an extremely high level of absorption and sound attenuation, an interposed lead layer with a thickness of 0.35 or 0.50 mm, or charged rubber with a thickness of 2 or 3 mm. Class 1 fire reaction according to test methods UNI8457 (1987) - UNI8457/A1 (1996) (CSE RF 2/75/A-UNI9174/A1 (1996)(CSE RF 3/77).



#### MATERIALS COUPLED WITH LEAD LAYERS OR CHARGED RUBBER (SOUNFLEX - MAPFLEX)

These materials are used to absorb or eliminate noise transmissions in wall partitions, soundproofing canopies or in boats where there are noises with different frequencies as it is particularly suitable for absorption of medium and low frequencies.

Sizes: 1.50 x 1.00 m – in sheets

This material is also available with adhesive on one side and with different surface finishes, such as: non-woven water and oil resistant fabric, aluminium, glass-fibre fabric.



Industrial plant acoustic reclamation (enclosed fans)



Wall partition isolation for the building sector



Acoustic isolation of a room housing a generating set



Acoustic isolation of a yacht engine compartment



### **DIFFERENT ACCOMPLISHMENTS**



Wall/ceiling insulation in a control room



Acoustic barrier



Acoustic reclamation of doors in hydroelectric power plants through the application of silencers with baffles



Acoustic reclamation of technical room wall partitions



Technical room acoustic reclamation



Acoustic reclamation of basement windows for hydroelectric power plants



Creation of a soundproofed ducting chimney



Music room floor reclamation



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