

# Shooting Range Division













# Serving your firing range

**The-ma SPA** has been a leading player in the soundproofing sector for years, offering a wide array of solutions for firing ranges, open-air and shooting tunnels.

Our professionals are available for information and insights concerning the latest technologies in terms of soundproofing products, bullet-proofing, shooter dividers, protective rubbers, safety floors in compact rubber or agglomerates, etc.

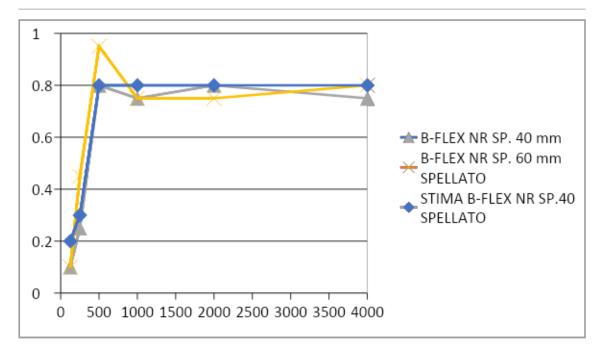
Not only do we directly supply firing ranges with the materials they need; we also cooperate with the main firing range producers at a national level in implementing project-based structural and plant works.

Over the years we have had the pleasure of collaborating with the Military Academies of Modena, Carpi, Mantua, Padua, Tolmezzo, the TSN of Avigliana, Bagnolo Mella, Bassano, Bra, Caprino Veronese, Carrara, Cerea, Chiavari, Chieti, Cosenza, Crevalcore, Faenza, Forlì, Gavardo, Grosseto, Jesi, Lucca, Mirano, Novi Ligure, Pergine Valsugana, Pesaro, Pescara, Pinerolo, Pistoia, Ravenna, Reggio Calabria, Rimini, Rovigo, Trecate, Vicenza etc.





# Comparison of the sound-absorbing properties of B-Flex NR in different thicknesses



# The winning choice for soundproofing. Soundproofing and industrial materials

#### **B-FLEX NR**

**B-Flex NR** is a polyethylene material with expanded closed cells of variable size, characterised by an irregular and pock-marked external surface (not smooth).

Light, resistant, odourless and easy to cut, as well as waterproof, rot-proof, resistant to mould and with a high resistance to chemical aggressions and to the alkaline reactions of cement-based products, it is confirmed as an excellent thermo-acoustic insulator able to retain unburned powders. Moreover, it is also a product approved for class 1 fire resistance.

It can be supplied smooth or with a pyramidal or corrugated section.



Its characteristic structure makes it suitable for all those applications where high soundproofing or thermal insulation is required, such as in firing ranges.

#### **Advantages:**

- Dense and deep beehive structure for excellent sound absorption
- Closed cells able to create a barrier to unexploded powder
- Self-structuring material which makes it easier to install
- Waterproof and mould-resistant material.





The **B-Flex NR** can be customised in a variety of formats.

The thicknesses available are:

20 mm, 30 mm, 40 mm, 50 mm, 60 mm, 70 mm, 80 mm, 90 mm and 100 mm, in sheets of  $1200 \times 2000$  mm or  $1200 \times 2900$  mm; other sizes on request.

There is also the possibility of customising the material by matching it with polyethylene-compatible materials.





#### **MELAMINE**

Light and flexible sound-absorbing material, produced from acrylic resins or foams. Approved for fire resistance class 1, it can also be used in environments where high temperatures are reached (up to 150°C).

The pyramidal melamine panels are excellent for environmental acoustic correction. In fact, thanks to their very low density (10 kg/m3), they allow changing reverberation times and improving sound absorption over a wider range of frequencies, reaching remarkable sound absorption values at medium and high frequencies and ensuring a clean and linear sound.



#### **POLYESTER FIBRE**



Composed of 100% polyester which mainly derives from differentiated urban collection, the polyester fibre is configured as a recycled material with a very low grey energy content, which does not contain toxic substances and can be handled and operated in total safety.

Resistant to high temperatures (-40/+ 110°C), approved for fire resistance class 1, it is available in different densities and thicknesses, hypoallergenic and non-toxic, it is obtained by weaving fibres without any glue or chemical additive.

Polyester fibre is at the same time a thermal insulator and sound-absorbing.

The technical characteristics and the ecological contents also make this material the ideal product for every kind of architectural structure. By keeping its mechanical and thermo-acoustic insulation characteristics unchanged, this product, in fact, ensures the project's value is unchanged over time.

#### COMPACT AND EXPANDED MATERIALS FOR INDUSTRIAL USE

Expanded materials made of EPDM, CR, NBR and PVC for industrial applications.

Chemical and physical polyethylene in rolls and slabs of various colours, with the possibility of being tailor-made to the customer's request, with various cutting technologies (for example die-cutting, plotter, waterjet). Expanded polyurethanes of various densities and colours, subject to multiple processes and applications.

All products are approved for fire resistance class 1.





# **Adhesives for application**





Over years of direct experience in the field, we have selected the best adhesives for the direct application of sound-absorbing material, on wood and on masonry. Water resistant, they guarantee high setting speed, good heat resistance and high strength. In case of a specific request by the customer, we can also supply flame-retardant adhesives.

The application of the adhesive, with a palette knife, is simple and fast and can be performed even by non-expert personnel.

# **Safety floors**

Keeping up with increasingly diverse requirements, we provide a variety of safety floors dedicated to shooting stations and tunnels, which allow being pierced by bullets, without giving rise to any type of ricochet. In fact, after being fragmented in the impact against the underlying reinforced concrete floor, the bullet remains trapped under the slabs.

As regards certified safety floors, we are also the official distributors of **REMP MOLDING TECHNOLOGY** which produces the 20 mm and 30 mm Polyway ballistic flooring, with relief or smooth finish, currently one of the best on the market for a set of reasons:

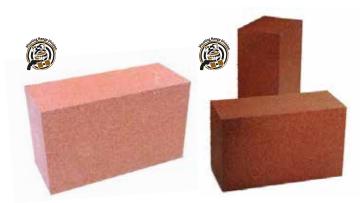
- Product certified by the Banco Nazionale di Prova di Gardone Val Trompia (National Testing Centre)
- Manufactured in compact rubber (not old tyre compounds)
- Reaction to fire certified product with low formaldehyde emission
- Product with a high resistance and durability.

The REMP Moulding Technology floors possess the CE 0987-cpd-66 certifications and those issued by the National Testing Bank for portable firearms and commercial ammunition.





### **Anti-bullet blocks**



The anti-bullet blocks that we offer are designed to be installed in any firing range, regardless of size.

They can be applied in various layers or staggered in any height and depth. Vertically they are excellent for first and second category firing ranges; positioned horizontally, however, they can be used for third-class firing ranges.

Standard dimensions: 500x300x200 mm

Weight per m<sup>2</sup>: 25 kg Colour: Red-brown or black

# For hearing protection: anti-noise earmuffs and earplugs

Anti-noise earmuffs and earplugs are an indispensable tool for hearing protection, as they are capable of totally or partially isolating from external sounds.

Earmuffs in particular, are ideal to protect the auditory apparatus and at the same time to allow communicating at short distances; thanks to the controlled attenuation function, in fact they allow focusing on the target whilst still hearing the surrounding environment without having to remove them. Furthermore, by connecting the mobile phone to the 3.5 mm earmuffs jack, it is possible to receive calls directly as well as listen to music in complete safety.





## **Protective goggles for shooters**

Indispensable for any shooter, the 3M Maxim Ballistic safety goggles are available with different types of lenses and in the version with stems or head-string.

With an innovative design and specifically designed for use with helmets or earphones, the goggles have passed the VO military test for high speed impacts (MIL-STD 662 standard - impact at 168 m/s) and the 2920 STANAG ballistic test.



Among the main features that help make these goggles comfortable:

- Optical class 1, for a comfortable and functional fit
- Tilting and interchangeable lenses
- Adjustable nose pad and soft protective mask.

# **Materials for fire protection**



**Crossing devices** are panels in high density mineral fibre (3M FireDam 240), pre-painted on one side with a silicone-based intumescent paint.

In the event of exposure to fire, the intumescent material expands up to ten times its volume: in combination with the mineral fibre, it provides a good performance in terms of insulation from heat and of integrity of the protected structure and, thanks to its high elasticity, it ensures mechanical resistance and noise reduction.

Flexible winding systems offer excellent performance in the oil & gas sector and are particularly suitable for application requirements such as ventilation ducts, grease ducts, chemical fumes, etc.

The **3M Fire Barrier Duct Wrap 615+** product allows a low thermal conductivity while the **3M Interam E-5A-4 Mat** helps to protect structural steel components for over 4 hours and electrical components for over 3 hours.

# **Insulating materials**

The **425 3M** Sheet Tape has a soft aluminium support and an acrylic adhesive coating designed to be highly sensitive to pressure; it is perfect for masking, sealing, repairing, protecting and galvanising operations.



The **Scotch 898** filament adhesive tape is reinforced throughout its length with a glass filament that provides high tensile strength. The pressure-sensitive synthetic rubber adhesive is specially formulated to offer balanced performance, ensuring both high grip and long-term sealing force.



Ideal for large openings, multiple cable crossings, raceways and conduits, the **3M Fire Barrier** product is an excellent alternative to mortar for wall crossings. Flexible and malleable to any type of shape, it does not dry and does not crumble.





... your business allies

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