



Granular polymer blend for lightweight substrates with high thermal and acoustic insulation performance.

IS IT:

☒ *Product*

☐ *Technology*

☐ *Equipment*

APPLICABLE FOR:

☒ *Restoration*

☒ *Rehabilitation*

☒ *New Construction*

APPLICABLE ON:

☐ *1. Foundations and underground structures*

☐ *2. Vertical structures*

☒ *3. Horizontal structures and vertical connections*

☒ *4. Roof and terraces*

☐ *5. Façade and building envelope*

☐ *6. Finishes and completion elements*

☐ *7. Integrated services*

☐ *8. General strategies for building recovery*

Related companies: G-MIX.

DESCRIPTION

It is a polymer granular mixture for lightweight substrates with high thermal and acoustic insulation performance, ideal to meet the new building regulatory and market requirements on energy saving, acoustic comfort and environmental protection.

WHY TO USE

It is a granulate made of mixed polymers coming from the recycling of non-hazardous post-consumer plastic materials, to be used as an aggregate in cement mortars to replace the natural aggregate such as sand, expanded clay, etc. and is fully compliant with UNI 10667-14.

Characteristics:

- 1) Simplicity and speed of installation. With a moist earth consistency, it is packaged and laid like a traditional substrate, without the need for special machines or skilled labor;
- 2) Lightness. The weight of the finished substrate in place equal to about 600 kg/m³ is far less than that of a traditional sand and cement screed (about 2000 kg/m³);
- 3) Thermal insulation. It has a thermal conductivity $\lambda=0.066$ W/mK comparable to that of a real insulating panel. To obtain the same thermal insulation of 8 cm as G MIX, approx. 29 cm of expanded clay, approx. 15 cm of aerated concrete, approx. 5 cm of polystyrene;
- 4) Acoustic insulation. It is the only elastic cementitious screed that reduces noise and vibrations, reducing the impact noise of the floors, both in the laboratory and on site, by over 20 dB;
- 5) High compressive strength. It achieved the best compressibility class (CP2) under the maximum test load of 5,000 kg/m²;
- 6) Eco-sustainability. It comes 100% from the recycling of non-hazardous post-consumer plastics and avoids the extraction and consumption of new non-renewable raw materials;
- 7) Economy. Its cost is the lowest in the same product category;
- 8) Easy procurement in the most convenient and convenient form based on the type, location and size of the site, with a fast and widespread commercial service;

9) Long conservation for storage and provision, even outside.

10) Easy movement inside the building yard site, which also allows you to reuse any leftovers.

HOW TO USE AND APPLY

Thanks to its lightness and elasticity, its high thermal and acoustic insulating power, its very high compressive strength, the lightened G MIX substrate is ideal for creating:

- Lightened substrates for filling, covering and leveling systems, on new floors or floors to be restored of any type (brick-concrete, wood, metal, etc.);
- Thermal insulating substrates in intermediate floors, against the ground, towards the outside or towards unheated rooms (e.g. garages);
- Isolation and construction of slopes on flat and sloping roofs, flat roofs and roofs in general, new or to be restored;
- Thermal insulating substrates under the radiant floor heating;
- Acoustic insulating substrates in residential environments or for damping vibrations in artisanal and industrial environments;
- Insulation of heated swimming pools, on the bottom and perimeter walls;
- Filling of vaults and cavities;
- Internal and external vehicular substrates of squares, parking lots, etc.;
- Bedding and embankments under services within excavations.

PACKAGING AND LAYING

Mix G MIX with water and cement until a desired moist consistency is obtained.

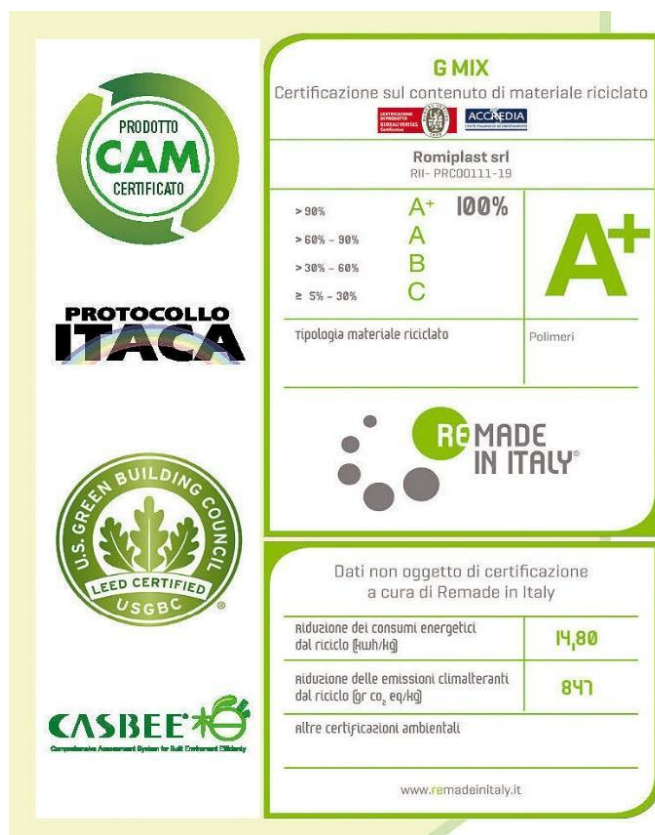
The typical recommended dose for 1 m³ of polymer is 80/180 kg of cement and 80/150 liters of water (depending on the application - eg for internal substrates 125 kg of cement and 120 liters of water). The indicative consumption of the product is 5 kg/m² for each cm of thickness.

It is mixed, transported and laid like a traditional substrate (manually, with a construction site concrete mixer or pneumatic pump). Thanks to its high lightness and workability, it drastically reduces installation times and costs compared to a traditional substrate.

TECHNICAL CHARACTERISTICS

The polymer granulate comes 100% from the recycling of post-consumer plastic materials through a transformation cycle with very low energy consumption and environmental impact, and its use avoids the useless landfill of non-hazardous materials and the extraction of new non-renewable raw materials.

It complies with the CAM (Minimum Environmental Criteria of the Italian Ministerial Decree 11/10/2017) mandatory under the new Procurement Code, points 2.4.1.1 (disassembly) and 2.4.1.2 (recovered or recycled material). This conformity is certified by the ReMade in Italy certification in the best existing class A+ thanks to the 100% recycled composition.

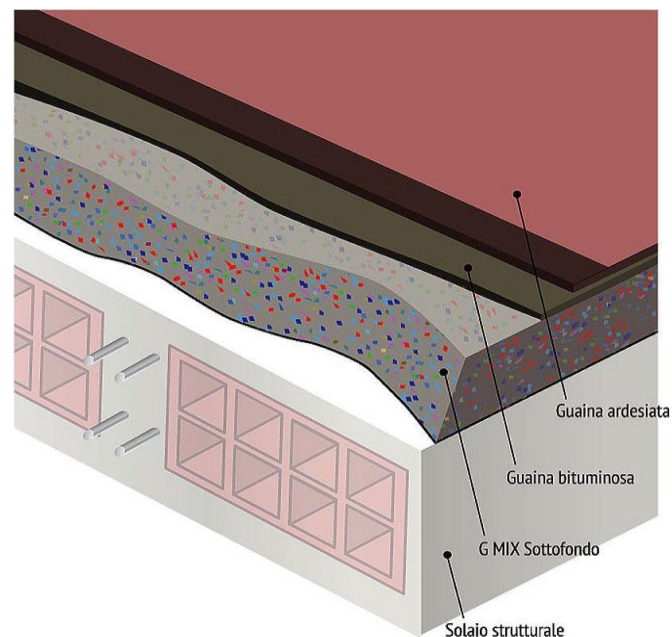


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G-LIGHT

It is an economical and fast solution for thermo-acoustic insulation and waterproofing of both flat and sloping roofs, obtained by casting the G MIX eco-insulating substrate, both on new floors and above screeds and existing waterproofing to be redeveloped, on which it is possible

to directly weld the new bituminous membrane to complete the waterproofing.

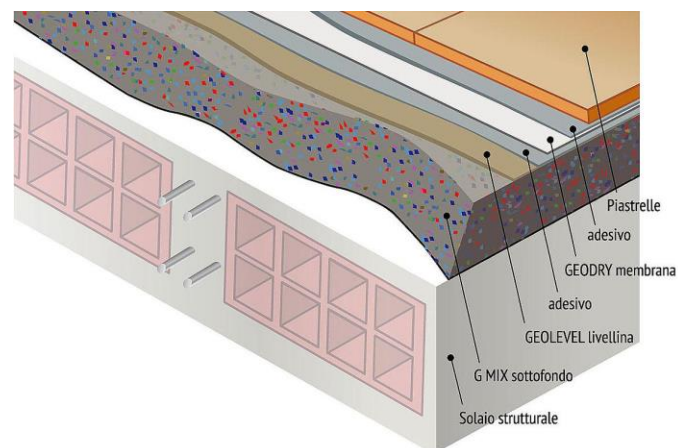


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G-COMFORT

It is a finishing system for flat roofs obtained from the combination of G MIX and GEODRY technologies. The casting of the G MIX eco insulating substrate is finished on the surface with the special GEOLEVEL cementitious leveling compound and with the GEODRY waterproof polymer membrane, on which the final flooring can be directly bonded, without the need for additional screeds.

It is an innovative solution including a thermo-acoustic insulation and a waterproofing surface in a single package of reduced thickness.



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G DRY SYSTEM

It is a complete system comprising G MIX GRANULAR substrate and G PLASTER FIBER screed for laying the flooring, made entirely dry, without the use of water, cement or other binders. Suitable for finishing packages of internal floors, it is achieved by laying a layer of granular substrate, a separation layer consisting of a resilient mat or polyethylene sheet and finally a screed in gypsum fiber plates.



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RECOMMENDATIONS AND OTHER INFORMATION



Big bags Gmix
da 2 o 2,5 mc



Sacco Gmix
da 20 kg



Bisacco Gmix S
+ cemento 15 Kg



sfuso in vasche

G MIX SUPPLY

Procurement can take place in the most convenient and convenient form based on the type, location and size of the site.

EXAMPLES

TOR VERGATA UNIVERSITY | NEW RECTORATE OFFICE | ROME, ITALY

Thermal and acoustic insulation of the ground floor slabs for thousands of square meters with a thickness of about 28 cm in complete replacement of the traditional light insulation.



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DELEDDA PRIMARY SCHOOL | APRILIA, ITALY

Restructuring with thermal-acoustic insulation of 1,750 square meters of coverage, in complete replacement of the traditional lightweight insulation, without dismantling and disposal of the old waterproofing, with significant savings in intervention costs, and operating costs for the winter heating of the underlying rooms.



REFERENCES / SOURCES AND LITERATURE

<https://www.gmix.it/gmix-scheda-tecnica/>

WEBSITE OF THE COMPANY

<https://www.gmix.it/>

<https://www.gmix.it/g-mix-video/>

<https://www.gmix.it/gmix-posa-in-opera/>

<https://www.gmix.it/video-cubatura-e-compattamento-bags-gmix/>



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CHILDHOOD SCHOOL | “MOTHER OF DIVINE LOVE” | ROME ITALY

Renovation with thermal-acoustic insulation of 800 square meters of solar roof, without dismantling and disposal of the old waterproofing, with significant savings in intervention costs and operating costs for the winter heating of the underlying rooms.



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IMAGES AND CAPTIONS

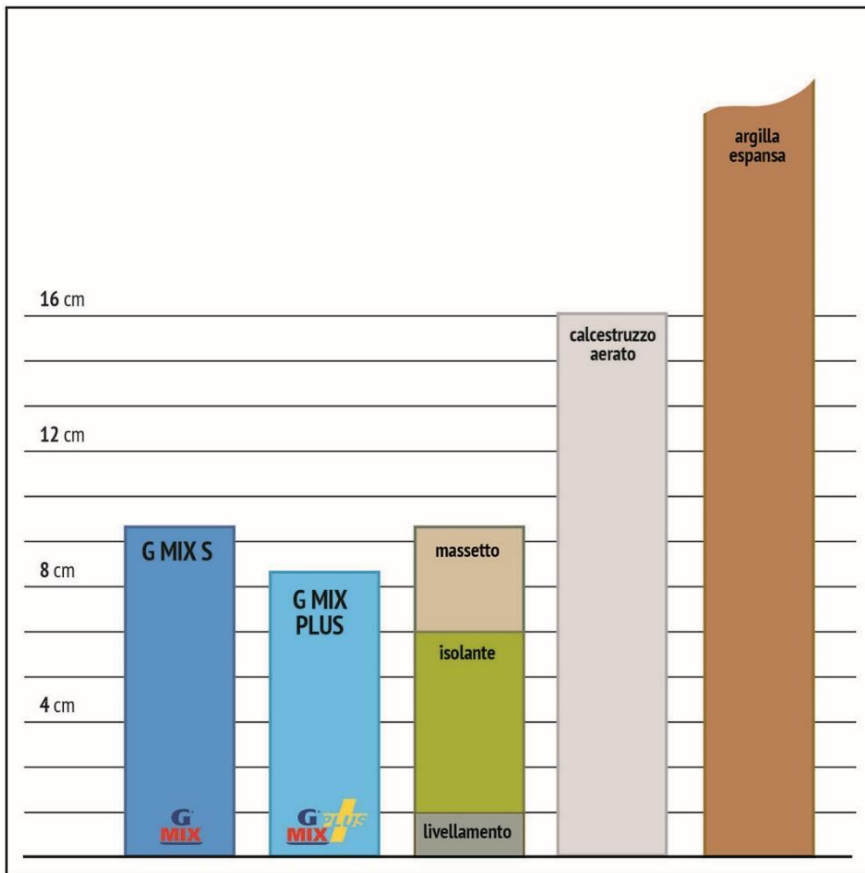


Fig.1: reduces thermal conductivity by 15% compared to the standard mixture and therefore reduces the necessary thickness for the thermal-acoustic insulation. To have the same thermal insulation of 8 cm as G MIX PLUS, 29 cm of expanded clay, 15 cm of aerated concrete, 5 cm of polystyrene would be needed. © <https://www.gmix.it/g-mix-plus/>

Consente il **riciclo di ulteriori materie plastiche**, aumentando sempre di più il valore ambientale della tecnologia G MIX, **ideale per il rispetto dei CAM negli appalti pubblici** e per gli interventi di efficientamento energetico **SUPERBONUS 110 %**, nonché per le **certificazioni ambientali** degli edifici (protocolli ITACA, LEED, ecc.).

Brevetto richiesto | Patent pending



Fig.2: The product allows the recycling of plastic materials, increasing the environmental value more and more.

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Fig.3: The building applications of the product. © <https://www.gmix.it/g-mix-tutte-le-applicazioni-nelledilizia/>