GRMP™

Gypsum Ready-Mix Plaster

AFZIR
Advanced Solutions
Strengthening Company

PRODUCT DESCRIPTION

GRMP™ gypsum plaster is a commonly used construction matrix in many building operations, and its design has been optimized for important applications such as the installation of a wall mesh system for reinforcing non-structural walls against lateral forces. Installation of GRMP™ gypsum plaster is simple and has a high execution speed. This plaster is resistant to fire, heat, and mechanical forces and has high adhesive strength. Therefore, when installing fiber networks on wall surfaces for wall mesh installation, it creates a uniform and durable coating on FRP meshes, fixing them in place with high strength. Additionally, this plaster has anti-breakage and flexibility properties and is highly resistant to temperature changes, contraction, and expansion. For this reason, it is suitable for covering and Rendering various building surfaces, including concrete, brick, stone, block, etc.

PRODUCT FEATURES

- High flexural strength
- High compressive strength
- High tensile strength
- Without creating shrinkage cracks
- Fast and easy in execution
- Flexible and highly formable
- High resistance to fire
- Thermal and acoustic insulation
- Resistant to cracking
- Resistant to expansion and contraction
- Reasonably priced and economical
- High compatibility with other building materials
- Compatibility with the environment
- Excellent adhesive strength
- Suitable for implementing the wall mesh system
- Compatible with various FRP meshes
- High service life
- Suitable setting time
- Ability to accept paint color

PRODUCT USES

- fiberglass wall mesh Implementation
- carbon wall mesh Implementation
- Plastering walls, ceilings, and other interior components of buildings
- Covering and repairing surface cracks and defects
- Implementation of plaster coating on brick, stone, block, concrete, etc. surfaces
- Surface preparation for painting
- Production of decorative building models
- Construction of drywall or gypsum boards

TECHNICAL DATA

Color	White
Density of dry mortar	950 kg/m³
Initial setting	> 50 min
Working temperature	+5 °C – +30 °C
Adhesion strength	≥0.1 (N/mm²)
Flexural strength	≥1.0 (N/mm²)
Compressive strength	≥2.5 (N/mm²)
Adhesive strength	≥0.1 (N/mm²)

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HOW TO USE

Covering surfaces with GRMP™ gypsum plaster can be easily done using simple tools, but for creating a smooth and uniform surface, proper execution is crucial, especially in more important applications such as using gypsum plaster in the implementation of a wall mesh for stabilizing non-structural walls. In the following, we explain the proper steps for applying GRMP™ plaster in a wall mesh system.

SURFACE PREPERATION

Before anything, the wall, ceiling, or other desired surfaces must be prepared. Surface preparation includes checking for any defects or damages present on the surface and cleaning it from any contaminants such as grease, dust, loose aggregates, etc. using tools such as a grinder, hammer, wire brush, etc. Note that the best condition for using GRMP™ gypsum plaster is a completely dry and moisture-free surface. This is because plastering on a moist surface causes the gypsum plaster to dry improperly and ultimately results in an undesirable appearance. Therefore, before using gypsum plaster, make sure that the surface is completely dry.

FIBER MESH INSTALLATION

In the implementation of wall mesh for strengthening non-structural walls against lateral forces, FRP mesh strips are used on the surface of the wall instead of heavy metal wall posts installation. These fiber meshes are installed on the surface of the wall after installing the L-shaped angle or UNP steel controlling the out-of-plane movements of the wall on the frame of the structure and also placing the material separating the wall from the frame such as expanded polystyrene and rock wool.To implement wall mesh, it is sufficient to cut the fiberglass mesh or carbon fiber mesh with a width of 25 centimeters and a length equal to the height of the wall. Then, the fiber mesh strips should be temporarily held on the surface of the wall using spike wall mesh until finally fixed in place by applying a layer of gypsum plaster. The use of FRP mesh protects the plastered surface from any surface damage, especially cracks. Generally, reinforcing plastering with FRP mesh improves the strength and resistance of the wall against lateral forces and damage caused by destructive factors.

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MIXING

GRMP™ Gypsum plaster is a single-component, powdered mixture that is ready to use by simply blending it with 0.6 to 0.7 parts by weight of water to achieve a uniform mixture. To achieve acceptable results, it is recommended to use a mixer for preparing GRMP™ gypsum plaster.

APPLICATION

GRMP™ gypsum plaster is generally applied manually onto the desired surface using a trowel. Therefore, in the implementation of a mesh wall, GRMP™ gypsum plaster must also be applied onto the pre-installed fiber mesh on the surface using a trowel. It should be noted that each layer of gypsum plaster must be completely dry before applying the next layer. Applying a layer of gypsum plaster onto the FRP mesh in the construction of a mesh wall should continue until the FRP mesh is buried to an adequate extent.

Note: The time required for GRMP™ gypsum plaster to set or dry depends on various factors such as relative humidity and temperature of the environment, the thickness of the plaster layer, and the type of surface it is applied to. However, generally, GRMP™ gypsum plaster requires approximately 24 to 48 hours to completely dry and set. Nevertheless, to ensure that the gypsum plaster is fully dry and set, methods such as touching the surface of the plaster can be used to check for dryness. After the final setting, the surface is ready for use without any concerns.

STORAGE

To ensure proper storage of GRMP™ gypsum plaster, it is recommended to keep it in a covered, dry, and cool environment with a temperature that ranges between 5 to 30 degrees Celsius and a relative humidity level of less than 75%. It is crucial to protect the plaster from any contact with water or moisture and store it in its original packaging. If the bag of plaster is already open, it should be resealed in an airtight container to prevent the entry of air and moisture effectively. Additionally, it is advisable to stack the bags of plaster at a distance from the ground and walls of the storage area.

CLEANUP

Clean all tools and application equipment with water immediately after use. Hardened and/or hardened material can only be removed mechanically.

FIRST AID

In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water; contact physician immediately. For respiratory problems, remove to fresh air. Wash clothing before reuse.

DISCLAIMER OF LIABILITY

AFZIR, LLC warrants its products to be free from manufacturing defects. Buyer determines suitability of product for use and assumes all risks. Buyer's sole remedy shall be limited to replacement of product. Any claim for breach of this warranty must be brought within six months of the date of purchase.
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