



Manufacturing & Application Of Ready Mix Plaster Sand & Joint Mortor

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Abstract: Ready mix plaster sand is a pre-mixed blend of fine sand, cement, and water-retaining agents. It is used for internal and external plastering applications on walls and ceilings. The mixture is easy to apply and provides a smooth, even finish, making it a popular choice for both residential and commercial projects. On the other hand, joint mortar is a specialized mix of cement, sand, and water-reducing agents that is used for filling gaps between bricks or blocks in masonry construction. It helps to bond and strengthen the structure by filling gaps and preventing water and air infiltration. Using a ready mix plaster sand and joint mortar can save time and effort compared to manually mixing the materials on-site. Additionally, these pre-mixed products provide a consistent quality, reducing the risk of errors and inconsistencies that can arise from mixing the materials manually. Overall, ready mix plaster sand and joint mortar are versatile building materials that can improve the efficiency and quality of construction projects, making them popular choices for builders, contractors, and DIY enthusiasts alike.

I. INTRODUCTION

Ready mix plaster sand and joint mortar are two important building materials that are widely used in the construction industry. Both materials are pre-mixed and ready to use, making them convenient and time-saving options for builders, contractors, and DIY enthusiasts. Ready mix plaster sand is a blend of fine sand, cement, and water-retaining agents, used for internal and external plastering applications on walls and ceilings. It provides a smooth and even finish, making it a popular choice for residential and commercial construction projects. Joint mortar, on the other hand, is a specialized mix of cement, sand, and water-reducing agents that is used for filling gaps between bricks or blocks in masonry construction. It helps to bond and strengthen the structure by filling gaps and preventing water and air infiltration. Using these pre-mixed materials can save time and effort compared to manually mixing the ingredients on-site. They also provide a consistent quality, reducing the risk of errors and inconsistencies that can arise from manual mixing. In summary, ready mix plaster sand and joint mortar are versatile building materials that can improve the efficiency and quality of construction projects.

II. SUMMARY

Ready mix plaster sand and joint mortar are two essential pre-mixed building materials used in the construction industry. Ready mix plaster sand is a blend of fine sand, cement, and water-retaining agents, used for internal and external plastering applications. Joint mortar, on the other hand, is used for filling gaps between bricks or blocks in masonry construction, helping to strengthen the structure and prevent water and air infiltration. Both materials offer convenience, time-saving benefits, and consistent quality, making them popular choices for builders, contractors, and DIY enthusiasts. Overall, these building materials improve the efficiency and quality of construction projects.

III. METHODOLOGY

Data Collection:

1. Collection of research papers on construction waste management and demolition.
2. Determining the case studies related to project topic.
3. Selection of appropriate site in accordance to project topic

Study of effective use of planning principles

1. Analysis and detailed study of research papers.
2. Prepare a actual plan for existing project
3. Overview of all situations while executing the project



Analysis of study:

1. While analysis of the research papers, Many problems are defined.
 2. By analysing the all above data , Found that this project can used for different situations
 3. The Project can be applicable for reuse of construction waste.
 4. And also the project can be applied on Sea where occurred
- Overview of all situations while executing the project

Adaptation, Sustainability, Efficiency, and Management (ASEM)

❖ Advantages:

Ready mix plaster sand and joint mortar are pre-mixed and ready to use, which saves time and effort in the construction process. These materials provide consistent quality, reducing the risk of errors and inconsistencies that can occur with manual mixing. They offer convenience, as they can be stored and transported easily.

Ready mix plaster sand provides a smooth and even finish, while joint mortar helps to strengthen the structure and prevent water and air infiltration.

❖ Economical:

Using pre-mixed materials can be cost-effective as it eliminates the need for manual mixing, saving labor costs and reducing waste.

They also reduce the likelihood of mistakes in mixing, which can lead to costly rework.

❖ Method of use:

Ready mix plaster sand is used for internal and external plastering applications on walls and ceilings. It can be applied with a trowel or spray equipment.

Joint mortar is used for filling gaps between bricks or blocks in masonry construction. It is applied with a trowel or pointing gun.

❖ Flexibility:

Ready mix plaster sand and joint mortar can be used for a wide range of construction projects, including residential and commercial buildings.

They can be used on different surfaces such as concrete, brick, and block, providing flexibility in the construction process. These materials can also be customized to meet specific project requirements by adding additional agents or modifying the mix proportions.

Ready mix plaster sand and joint mortar have several applications in the construction industry, including:

1. Plastering: Ready mix plaster sand is commonly used for internal and external plastering applications on walls and ceilings.
2. Masonry work: Joint mortar is used for filling gaps between bricks or blocks in masonry construction. It helps to bond and strengthen the structure by filling gaps and preventing water and air infiltration.
3. Stucco work: Ready mix plaster sand can be used for creating decorative finishes on exterior walls, such as stucco.
4. Tile fixing: Ready mix plaster sand can also be used for fixing tiles on walls and floors.
5. Repair work: Both ready mix plaster sand and joint mortar can be used for repairing damaged or cracked walls or ceilings.
6. Waterproofing: Joint mortar can be used for waterproofing masonry structures, such as basements, by filling gaps and preventing water infiltration.

The process of use of Ready mix plaster sand

1. Preparation: Before starting the application, make sure the surface is clean, dry, and free of debris, dust, and other contaminants. Also, ensure that the surface is stable and sound.
2. Mixing: If needed, remix the pre-mixed materials to ensure even distribution. For ready mix plaster sand, add clean water to the mixture and mix it thoroughly until a smooth and even consistency is achieved. For joint mortar, mix it with water as per the manufacturer's instructions until a smooth and workable consistency is achieved.
3. Application: Apply the ready mix plaster sand or joint mortar on the surface using a trowel, a spray machine, or a pointing



- gun. Ensure that the mixture is applied evenly, and the thickness is as per the required specifications.
4. Finishing: Once the mixture is applied, use a trowel or a finishing tool to create the desired finish or texture. If required, use a damp sponge to smoothen the surface or create a texture.
 5. Curing: Allow the mixture to cure as per the manufacturer's instructions. For ready mix plaster sand, it is typically 24 hours, while for joint mortar, it is usually 7-14 days, depending on the application.
 6. Cleaning: Clean any excess mixture or tools immediately after use, using water and a clean cloth.

It is essential to follow the manufacturer's instructions for the specific product and application to ensure the best results and avoid any issues. Additionally, ensure proper safety measures are taken when handling the materials, such as wearing gloves, masks, and protective clothing.

Stability

Ready mix plaster sand and joint mortar have a good shelf life and stability when stored and handled properly. The stability of these pre-mixed materials can be affected by several factors, such as temperature, moisture, and exposure to air. To maintain the stability and quality of these materials, it is important to store them in a dry and cool place, away from direct sunlight, moisture, and humidity. They should also be protected from freezing temperatures. When handling the materials, it is essential to use them before their expiry date and avoid exposing them to air or moisture for an extended period. Once the package is opened, use the material immediately and keep the remaining material in an airtight container to prevent it from drying out or contaminating.

Overall, ready mix plaster sand and joint mortar have good stability and shelf life when stored and handled properly, ensuring consistent quality and performance.

IV. CONCLUSION

In conclusion, ready mix plaster sand and joint mortar are an integral part of the modern construction industry. They offer several advantages over traditional manual mixing, including convenience, consistency, cost-effectiveness, and flexibility in use. One of the main advantages of using these pre-mixed materials is the convenience they provide. They eliminate the need for manual mixing, which can be time-consuming, messy, and inconsistent. With pre-mixed materials, the consistency of the mixture is assured, and the time and labor required for mixing are greatly reduced. In addition, ready mix plaster sand and joint mortar are cost-effective options for construction projects. They are available in a variety of sizes, and their use can lead to reduced labor costs and faster project completion times. The pre-mixed materials also help to minimize material waste, as only the required amount is used. Another advantage of these pre-mixed materials is their flexibility in use. They are suitable for a wide range of applications, including plastering, masonry work, stucco work, tile fixing, repair work, and waterproofing. They can be used on different surfaces and can be adjusted for different textures and finishes. The process of using ready mix plaster sand and joint mortar involves proper preparation, mixing, application, finishing, curing, and cleaning. Proper storage and handling are also necessary to maintain the stability and quality of these materials.

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