
МЕГАТРОН REPAIR R-1

Repair compound for structural restoration of damaged concrete

Description:

"Megatron Repair R-1" is a non-shrinking, fast-setting dry mix designed for the structural repair of concrete and reinforced concrete. The application thickness can vary from 10 to 100 mm in one layer. The repair mixture contains polyamide fiber, which enhances its flexural strength and abrasion resistance.

This dry building mix includes filler of certain granulometry. When mixed with water, it forms a solution with enhanced adhesive properties to steel and concrete surfaces.

During repair works, it is recommended to apply the material using a trowel or spatula with a thickness of up to 100 mm in one layer. If necessary, the application can be done in multiple layers to achieve greater thickness and stability.

Advantages of "Megatron Repair R-1":

- **High Strength:** The high strength of this mixture ensures the reliability of structural repairs over a long period.
- **Excellent Bond Strength:** "Megatron Repair R-1" exhibits high bond strength with the substrate, ensuring reliable adhesion to the surface, thus providing high moisture protection efficiency.
- **Wide Range of Applications:** "Megatron Repair R-1" can be used on various types of concrete structures (cement screeds and plaster, foundation walls, foundation slabs).
- **Waterproofing:** "Megatron Repair R-1" has high waterproofing properties, making it effective in preventing water and moisture penetration into the structure.
- **Ease of Use:** Applied only to lightly moistened surfaces (does not require surface drying) from any accessible side of the structure. Does not require additional protection.
- **Chemical and Corrosion Resistance:** "Megatron Repair R-1" is resistant to chemical substances and can withstand corrosion from seawater and groundwater.
- **Environmental Friendliness:** Megatron Repair R-1 does not contain harmful substances and does not harm the environment; it is approved for use in drinking water reservoirs.

Application Areas:

- Repair of precast concrete structures (foundation blocks, floor panels, balcony slabs, etc.);
- Repair of monolithic concrete structures (foundation slabs, cement-based screeds, columns, staircases, etc.);
- Repair of industrial buildings (foundation slabs, columns, wall panels, etc.);
- Repair of agricultural facilities (silos, bunkers, gas holders, underground and aboveground galleries, etc.);
- Repair of water management structures (pipelines, reservoirs, wells, boreholes, etc.);
- Repair of mining facilities;
- Repair of treatment facilities (septic tanks, settling tanks, etc.).

Application Recommendations:

"Megatron Repair R-1" should be applied according to the manufacturer's technological regulations.

Before applying "Megatron Repair R-1," the substrate must be prepared to ensure the best adhesion quality.

Before applying Megatron Repair, it is important to prepare the surface by slightly moistening it. Thoroughly moisten the surface before applying the specified material. It is essential to additionally clean the surface from dirt, dust, paint, lime, and other contaminants.

To remove damaged concrete, it is recommended to use diamond tools and impact tools, including a jackhammer. The main goal is to create an uneven rough surface to ensure reliable adhesion to the substrate where repair will be conducted.

It is necessary to thoroughly clean the reinforcement from corrosion and, if necessary, install additional reinforcement.

To eliminate pressure leaks, it is recommended to use "Megatron Plug."

Also, prepare manual tools, a bucket, and water for mixing. For proper preparation of the repair mixture, water should be added to the mixture, not vice versa, in a ratio of 6:1 (six parts

of the dry mix to one part of water by volume). It is recommended to mix mechanically for 3-4 minutes until a homogeneous mass without lumps is obtained.

The water content may vary depending on the ambient temperature and relative humidity. In dry hot weather, the solution may require more water.

Technical Specifications

Characteristics	Value
Appearance	Powdery dark-gray powder, free from impurities
Moisture content, % by weight	0,5÷0,7
Setting time, min	
Start	30÷35
End	45-60
Bulk density in uncompressed state, g/cm ³	1,35
Adhesion to concrete, MPa	2÷3
Compressive strength, MPa	
8 hours	20,0-22,0
2 days	29,3-31,6
7 days	48,4-54,4
28 days	62,0-72,0
Waterproof grade, W	W 12÷16
Frost resistance, number of cycles, F	F300
UV Resistance	Not affected
Application temperature, °C	+5
Operating temperature, °C	-60 ÷ +130
Shelf life, months	12

Material consumption:

Material consumption depends on the volume of work performed.

Storage:

The storage warranty period is 12 months at a temperature from -20 to +60°C in undamaged factory packaging.

Safety measures:

When using "Megatron Repair P-1", the following safety measures must be observed:

- Ensure safety in the workplace. Make sure the workplace is clean, empty, and free from

hazardous materials. Install barriers and safety signs where necessary.

- Use appropriate eye and respiratory protection. When sealing waterproofing, dust and other substances may be released, which can pose a health risk. Use protective goggles and respirators.

- Use safe tools and equipment. Make sure the tools and equipment you are using are safe for work. Check them before use.

- When working with waterproofing, follow safety rules for working with liquids and chemicals.

- Follow all safety requirements established by relevant organizations and manufacturers.

- Ensure that the materials you use are environmentally safe and do not have a negative impact on the environment.