BAUSKIN
BUILDING TECHNOLOGIES

Technical Datasheet

BAU R4

Polymer modified thixotropic repairing mortar for concrete for applications up to 60mm/ layer.

Description

One-component fiber-reinforced, non-shrink, highly thixotropic, repair mortar modified with polymer enhancers for structural and demanding repairs. Meets the requirements of European standard EN 1504-3 class R4.

Features - Advantages

• Delivering excellent mechanical properties
• Develop strong adhesion forces with the substrate combined with high elasticity
• Improved resistance to successive cycles of cooling - heating
• Ability to create thick layers (0-60mm per coat)
• Fine finishing
• High resistance to abrasion and common chemical

Examples of applications

• Repair and construction of high demands in concrete elements
• Precast joint elements
• Structural restoration of damaged concrete in bridges, buildings, tunnels, retaining walls, concrete etc.
• Repair of degraded concrete surfaces
• Fills nests, deductibles and creating joint-grooves in concrete elements

Surface Preparation

Provide stable surfaces that show no shrinkage trends. Remove loose, detached parts, dirt, oil, dust, etc. Before applying BAU R4 moisten the surface with water.

High-absorption substrates

Surfaces that have been exposed to intense heat during the hot days of summer or highly absorbent substrates need slight wetting of substrates without stagnating the water to reduce the water absorption and to avoid the rapid dehydration of the mortar. Generally no priming is required. In special cases where a primer should be used, use only BAUSKIN products and apply fresh on fresh.

Mixture preparation

Prepare BAU R4 in a container by pouring first the required quantity of water and adding the contents of the bag gradually stirring using a low speed electric mixer, until we have a homogeneous mortar.

Instructions

BAU R4 is applied manually by pressing the on the surface or mechanical blasting machine with appropriate care to penetrate and cover all the gaps. The material can be applied on successive layers but when the previous coat has set enough but before drying completely. It is recommended to use appropriate tools for flattening to achieve smooth finish. Avoid application under intense solar radiation (> 35 ^{o}C), during rainfall or anticipated to have temperature below 5 ^{o}C. During the summer days, keep surfaces wet by lightly spraying with water for two days after application.

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Precautions and safety
The product contains cement and is classified as an irritant. No special precautions are necessary for product application except for standard precautions applicable to all construction operations i.e. using gloves and goggles; preventing prolonged skin contact, etc. In case of eye contact, immediately wash with plenty of water and seek medical advice if necessary. Collect empty bags and plastic covers and dispose of in refuse bins designated for this purpose. Consult instructions for safe use indicated on product packaging. For more information please refer to the material safety data sheet of the specific product.

Specifications

Form: gray cement mortar
Density of dry mortar: 1.50kg/lit
Pot life: 3 hours at 20^{o}C
Water demand: ≈ 4,0 - 4,6 lit water / 25kg mortar
Consumption: 15,0 kg/m^2/cm for each layer depending on the substrate
Compressive strength: (EN 196-1) 1 day: ≥ 23 N/mm^2 7 days: ≥ 41 N/mm^2 28 days: ≥ 55 N/ mm^2
Flexural strength: (EN 196-1) 1 day: 4,5 N/mm^2 7 days: 7,5 N/mm^2 28 days: 9,4 N/mm^2 Containing chloride ions EN 1015-1 ≤ 0.01%
Requirements in accordance with EN 1504-3 class Test method R4 Requirements
Adhesion EN 1542 ≥ 2,0 N/mm^2
Thermal compatibility freeze - melt EN 13687-1 ≥ 2,0 N/mm2 (adhesion after 50 cycles)
Ion penetration cl EN 13396 ≤ 0,01%
Hazardous substances (Cr6 +) EN 196-10 <0,0002% <0,0002%
Elasticity EN 13412 ≥ 21 GPa

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Packaging

Paper bags 25kg and 5 kg plastic bags

Storage

In shady, preferably indoors with low humidity for at least 12 months

CE
2012
EN 1504-3
Cement based, polymer modified, concrete repair mortar for structural repair.

Notes

Technical details, properties, recommendations and information *on* BAUSKIN products are supplied in good faith. They are based on the company's research and experience, provided that they are stored and applied under normal conditions. As the method of using materials as well as project and environment conditions are beyond the control of the company in each individual application setting, the product user is held solely responsible for the result of application. No responsibility under any legitimate relationship can be substantiated against the company, based on the information set out hereunder. Product users are advised to refer to the latest revision of the technical manuals available.

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