



PC-Conrend®RM

Polymer-modified, structural grade repair mortar

PC-Conrend®RM is a pre-mixed, polymer-modified, fiber-reinforced cement mortar that is free from corrosive substances, making it ideal for both interior and exterior applications. This product boasts abrasion resistance, excellent substrate adhesion, water impermeability, and streamlines construction processes. Classified as a PCC R3 mortar type for concrete repairs in accordance with EN 1504-3, it holds Certificate Nr: 2032-CPR-10.11.

FEATURES

- Utilization of the dry spraying technique.
- Possesses low shrinkage and low E-modulus, in addition to being chloride-proof.
- Demonstrates high resistance to carbonation.
- Resistant to high temperatures, frost, and de-icing salt.
- Structurally verifiable.
- Non-flammable and categorized as Building Material Class A1 per EN 13501-1.
- Categorized as Class R4 per EN 1504 part 3.

PRODUCTS PROPERTIES

Physical Properties	Typical Value
Appearance	Grey powder
Composition	Portland cement, selected fillers and aggregates, special additives
Water to powder ratio	0.16
Expansion	Up to 4%
Compressive strength (ASTM C109 7cm cube)	25 mpa 24 hours
	45 mpa 7 days
	65 mpa 28 Days
Density	Approx. 2250kg/m ³
Processing Conditions	≥ +5 - ≤ +35 °C
Pot Life	20 minutes (water : powder = 0.15, +30 °C)
EarlyExpansion	1 - 2%
Mixing water per 25kg bag	Approx. 3.75 - 4.25 litres
Yields	3.5L of water yields 12.5L
Application temperature substrate material	+5 to +40°C
	+5 to +30°C

USES

PC-Conrend®RM is a prime material choice for structural repairs that require a thickness exceeding 10-12 mm, whether for vertical or horizontal applications. It is well-suited for both manual and mechanized structural repair systems. This versatile material finds its utility in various applications, including extensive repairs on beams, columns, and other critical structural elements, as well as the restoration of structural elements exposed to recurring loads.

SURFACE PREPARATION

All remnants of concrete, mortar, dust, grease, oil, etc. must be completely removed. Damaged or contaminated concrete should be removed to expose the aggregate surface. Utilize non-impact/vibrating cleaning methods like grit or high-pressure water blasting. The repair edges should be cut vertically to a depth of at least 5 mm. Ensure all exposed reinforcement is cleaned to a minimum SA 2 grade following ISO 8501-1 / ISO 2944-4 standards. Clear the back of the rebar from contaminants as well. If corrosion is detected on reinforcing bars, cut back the concrete by at least 20mm behind them. Use grit blasting to remove corrosion products around the bars and then coat with PC-Conrend®ZRP to prevent further corrosion. If the diameter of the reinforcing bars is reduced by over 20% after grit blasting, consider replacing the affected section with guidance from the project's structural engineer.

After completing the necessary preparation steps outlined above, the concrete surface is now ready for repair and restoration. When applying new concrete, make sure it is of high quality and compatible with the existing structure to ensure long-lasting results. Properly place and compact the fresh concrete to achieve a smooth and uniform finish.

PRIMING CONCRETE

No special primer is required. To improve bonding strength, it is recommended to apply a slurry brush coat of PC-Conrend®RM (mixing 2 parts powder with 1 part water) onto a damp substrate.



MORTAR PLACING

The product requires adherence to specified minimum temperatures both during application and for a minimum of 24 hours post-application to ensure optimal curing. It is recommended to pre-soak the prepared substrate, ideally for 24 hours, but a minimum of 2 hours before applying **PC-Conrend®RM**. The substrate should be adequately dampened, achieving a saturated surface dry state without any pooling water. Application of **PC-Conrend®RM** can be done via spray or manual methods. The mixed product is to be directly applied onto the prepared damp substrate or onto a primed surface while still wet. Using appropriate pressure during spraying is essential for ensuring strong material adhesion. To enhance adhesion, especially in manual application, a thin scrape coat or contact layer should precede the application to the desired thickness of 12 to a maximum of 50 mm, leveled using a screeding bar, trowel, or wooden board. Thicker applications are suitable for smaller patches or areas with additional reinforcement. Finishing touches such as smoothing with a trowel or using a float or sponge can be performed as the mortar begins to set. For added protection, subsequent coatings like Master Protect anti-carbonation barriers or silane impregnations should be applied as per individual recommendations.

Ensuring the proper application of **PC-Conrend®RM** is crucial for its optimal curing and performance. Preparing the substrate by maintaining specified temperatures and pre-soaking it for the recommended duration will set a solid foundation. Whether applying the product through spray or manual methods, the key is to achieve good adhesion by applying the mixed product onto a dampened substrate or a primed surface.

When spraying, remember that the right pressure is essential for a strong bond. For manual applications, consider using a thin scrape coat or contact layer before applying the product to the desired thickness. Smoothing and leveling the mortar with tools like a screeding bar, trowel, or wooden board will ensure a uniform finish.

PROTECTIVE COATINGS

It is recommended to apply subsequent coatings of anti-carbonation barriers or silane impregnations in accordance with the corresponding data sheets.

CURING

For **PC-Conrend®RM**, it's recommended to cure it post formwork removal by utilizing **PC-Buildcure®WB**.

PACKAGING

PC-Conrend®RM is available in 25kg bags.

SHELF LIFE

9-12 Months from date of Manufacture if stored in Unopened Packaging. Protect from Rain, Direct Sunlight, Heat and Frost

CLEANING OF EQUIPMENT

It's crucial to clean all tools and application equipment with water immediately after use. If materials are allowed to harden or cure, they can only be removed through mechanical means.

HEALTH AND SAFETY

To obtain complete information on health and safety hazards and the proper handling and usage of this product, kindly acquire a copy of the PCWC Material Safety Data Sheet (MSDS) from our office or website.

Taking the time to familiarize yourself with the PCWC Material Safety Data Sheet (MSDS) is essential for maintaining a safe and healthy environment when using our product. The MSDS contains detailed information on the potential health and safety hazards associated with the product, as well as guidelines on its proper handling and usage. By obtaining a copy from our office or website, you are demonstrating a proactive approach to ensuring the well-being of yourself and those around you. Remember, knowledge is power when it comes to safety, so don't hesitate to access the MSDS and equip yourself with the necessary information. Stay informed, stay safe!



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TECHNICAL DATA SHEET UPDATED IN
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TDS/PC-CONREND®RM/20

All technical data in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

The information, particularly the recommendations relating to the application and end-use of PC-WC products, are given in good faith based on PC-WC's current knowledge and experience of the products when properly stored, handled and applied under normal conditions by PC-WC recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or any other advice offered. The user must test the product's suitability for the intended application and purpose. PC-WC Global FZ-LLC reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Our technical assistance is at the disposal of the users. Consult the latest update of the technical data sheet on our [website www.pc-wc.com](http://www.pc-wc.com)