



PRO CEMIX™ WS



2. MANUFACTURER

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3. PRODUCT DESCRIPTION

PRO CEMIX™ WS is a polymer-modified fast-setting, pre-blended, shrinkage compensated, abrasion resistant, calcium aluminate cement-based mortar for concrete repair, topping, floating topping and for building new screeds. PRO CEMIX WS allows foot traffic and ceramic tile installation after 3-4 hours and floor covering installation after 24-48 hours.

Features

- ♦ Generates very high compressive strengths (> 55 MPa [> 8,000 psi])
- ♦ Apply from 10 mm (3/8") up to 10 cm (4") in thickness
- ♦ Wearing surface and abrasion resistant
- ♦ Shrinkage-free
- ♦ FAST-SETTING: Foot traffic, install tile or apply self-leveling after 3-4 hours and floor coverings after 24-48 hours
- ♦ Can be mixed with PRO SET PLUS™ for better performance
- ♦ Up to 20% (4.5 kg [10 lbs] per 22.7 kg [50 lb] bag) of 10 mm (3/8") pea gravel can be added for thicker application from 25 mm (1") up to 20 cm (8") thick for deep repair (contact PROMA's Technical Service Department for proper advice and recommendations)
- ♦ For use over concrete, OSB and exterior-grade plywood surfaces
- ♦ For interior and exterior, institutional, commercial and residential applications
- ♦ Compatible with all setting materials, adhesives, and floor coverings including wood parquet and rubber
- ♦ Blocks pH
- ♦ Will not promote mold, mildew or bacteria growth
- ♦ No VOC
- ♦ Product characteristics improves indoor air quality compared to Portland cement-based products
- ♦ Eco friendly for users of the material
- ♦ Contributes to LEED® objectives and requirements

Packaging

22.7 kg (50 lb) bag

Suitable Substrates

- ♦ Dry, completely cured concrete (at least 28 days old)
- ♦ Cement backer units (CBU)
- ♦ Gypsum and light-weight concrete surfaces †*
- ♦ Existing ceramic and quarry tiles, porcelain, granite and marble†
- ♦ Cementitious and Epoxy Terrazzo floors†
- ♦ OSB/Exterior Grade Douglas Fir Plywood, certified CANPLY (SELECT) or (SEL-TF) CSA 121, for INTERIOR Residential Light-Duty Floors in dry areas only †
- ♦ Metal such as steel, copper, stainless steel, aluminum or lead†
- ♦ Old cut-back adhesive residue and water-soluble adhesive residues †
- ♦ Existing VAT and VCT tiles, and non-cushioned vinyl sheet goods †
- ♦ Homogeneous PVC flooring †
- ♦ Resin-based floor coverings (epoxy, urethane or polyurethane) †

† When primed with PRO SUPERPRIME™ or PRO SUPERPRIME 1C (see respective data sheet for details)

* Provided that the tensile bond strength of 72 psi (0.5 MPa) is reached as a minimum.

Limitations

- ♦ Do not use at temperatures below 10°C (50°F) or above 29°C (85°F).
- ♦ Do not apply directly over particleboard, chipboard, presswood, Lauan, masonite and other dimensionally unstable materials.
- ♦ Do not use if hydrostatic pressure is suspected.
- ♦ Do not use on vertical surfaces.
- ♦ Do not use as anchoring grout.
- ♦ For exterior installations or for wet areas, mixing with PRO SET PLUS™ is recommended.
- ♦ For exterior installations, PRO CEMIX WS must be covered with a waterproofing membrane like our PRO MBR XD™.
- ♦ Do not add water to the mix once it begins to thicken.
- ♦ Do not apply below a thickness of 32 mm (1 3/8") over 5/8" plywood or OSB substrates.
- ♦ Before installing a free-floating PRO CEMIX WS and before any installation over plywood and OSB, use a non-corrosive (50 x 50 mm [2" x 2"] CSA G 30.5-M or ASTM A 185 M) wire-fabric reinforcement.
- ♦ Avoid contact with aluminum and metal sidings, railings, bars, windows and accessories; insulate such areas by applying an appropriate epoxy coating.
- ♦ Protect re-bars, posts and structural elements with PRO PRIME EPX™ (contact PROMA's Technical Service Department for proper advice and recommendations).
- ♦ Do not use PRO PRIME EPX as a primer on large area.
- ♦ Protect from any direct air ventilation or heat radiation source, such as direct sunlight, during the installation. These conditions could cause the repair product to cure too rapidly, resulting in micro-cracking.
- ♦ Do not accelerate curing time by using ventilators or heating appliances.



Concrete

OSB / Exterior-Grade Plywood



4. TECHNICAL DATA

Applicable Standards

For Additional Information, please refer to the most recent TCNA handbook for ceramic tile installation or the TTMAC Specification Guide 09 30 00 Tile Installation Manual, or visit our website at www.proma.ca.

WORKING PROPERTIES (@23° C [73° F] and 50% RH)	
Final set	45 minutes

PHYSICAL PROPERTIES (@23° C [73° F] and 50% RH) WHEN MIXED AT 10% WATER	
VOC content	0 g/L
Compressive strength ASTM C-109	
3 hours	> 20.7 MPa (3,000 psi)
1 day	> 31.0 MPa (4,500 psi)
7 days	> 48.2 MPa (7,000 psi)
28 days	> 55.1 MPa (8,000 psi)
Flexural strength – ASTM C348	
28 days	> 12.7 MPa (1,850 psi)
Pull-Off strength on concrete ASTM D4541 (PRO CEMIX WS mixed at 13.5% water)	
7 days	> 3.1 MPa (450 psi) (failure in concrete substrate)
Volume change	
28 days, dry-cured	< -0.07%
Abrasion resistance ASTM D4060 Taber H22-500 g, 200 cycles	
7 days drying	1.0 g
Approximate coverage per 22.7 kg (50 lb) bag	
Thickness	Coverage
10 mm (3/8")	1.2-1.3 m ² (13.9-14.4 ft ²)
25 mm (1")	0.5 m ² (5.2-5.4 ft ²)
50 mm (2")	0.2-0.3 m ² (2.6-2.7 ft ²)
Shelf life	
6 months if kept in its original unopened packaging and stored in a dry location.	

5. INSTALLATION

Surface Preparation

(Refer to PROMA Surface Preparation Guidelines for complete details)

Note: PRO SUPERPRIME™ and PRO SUPERPRIME™ 1C can be used to ready nearly any surface for PROMA toppings without the need for scarifying or shotblasting, saving valuable time and money (see respective technical data sheet for details).

- Surfaces must be clean and free of dust, oil, grease, paint, tar, wax, curing agent, primer, sealer, form release agent or any deleterious substance and debris which may prevent or reduce adhesion.
- Acids, concentrated alkaline conditions and cleaning chemical residues must be neutralized or removed.
- All concrete substrates must be completely cured (at least 28 days old), solid, sound, textured and have a direct tensile cohesive strength greater than 1.2 MPa (175 psi) when tested in accordance with ACI 503 R – (Appendix A) procedure.
- On grade or below grade concrete slabs must be installed over an effective vapor barrier
- All concrete substrates must be dry and free of hydrostatic conditions and/or extreme moisture problems. Perform a calcium chloride moisture emission test (ASTM F-1869) on the concrete substrate before proceeding with the installation of the floor. For wood flooring and resilient floor covering installations, the moisture vapor emission of the concrete must not exceed 1.36 kg per 93 m² (3 lb per 1,000 sq. ft.) per 24 hours. Do not prime, repair, level or patch the substrate, or install any floor covering materials until moisture problems and conditions have been addressed to meet these requirements. Please contact our Technical Service Department for appropriate recommendations.
- Existing Gypsum and light-weight concrete surfaces must be properly primed with PRO SUPERPRIME OR PRO SUPERPRIME 1C (see respective technical data sheet for details)
- Smooth concrete substrate surfaces must be either PRIMED with PRO SUPERPRIME or PRO SUPERPRIME 1C or mechanically roughened in accordance with an engineer-approved procedure (shot-blasting, scarification, grinding, sand or water-blasting, etc) to provide sufficient surface texture and profile for the adequate bonding of the subsequent repair product (ICRI CSP between 7 and 9).
- If concrete is dry and porous, it must be saturated with water (saturated surface-dry) or primed with Pro SUPERPRIME OR PRO SUPERPRIME 1C to prevent an uncontrolled absorption of water out of the repair mortar. The concrete must be free of any standing water.
- Reinforcement bars need to be primed with PRO PRIME EPX™.
- Do not use sweeping compounds. This could leave an oily film on the concrete surface that will prevent a proper bond.



Mixing

Mixing Ratio: 4 to 6 parts powder to 1 part water (by volume)

1. Use clean mixing-tools and containers.
2. In a clean mixing container, depending on the desired consistency, measure and pour between 2.3 L-3.2 L (0.6-0.85 US gal / 2.4-3.4 US quarts) of cool clean water or PRO SET PLUS™ and gradually add 22.7 kg (50 lb) of PRO CEMIX WS powder mix, while mixing slowly.
3. For deep repair, add up to 4.5 kg (10 lbs) per 22.7 kg (50 lbs) bag of washed, saturated surface dry 10 mm (3/8") pea gravel.
4. Using a low-speed mechanical mixer (150 - 300 rpm), mix until a homogeneous, smooth, lump-free, consistency is achieved.
5. The product is now ready for setting.
6. Use the product within the shortest possible delay (within a few minutes).

Application

Note: Protect from any direct air ventilation or heat radiation source, such as direct sunlight, during and after the installation.

1. Spread PRO CEMIX WS immediately after mixing with a flat trowel to the desired texture and finish.
2. Do not mix more material than can be used in a 20-minute period.
3. For installation over a slurry coat or over PRO SUPERPRIME and PRO SUPERPRIME 1C primers, apply PRO CEMIX WS onto the WET SLURRY or onto the wet primer before it dries.
4. Do not add any water once the mixture has hardened. For more detailed information on ways to apply this product, please contact our technical department for proper recommendations and job field assistance

Expansion and Control Joints

- ♦ Install control joints where tiles abut restraining surfaces, around the perimeter of the work and at the base of columns and curbs.
- ♦ Install and space expansion and control joints in all directions in accordance with TCNA HANDBOOK FOR CERAMIC TILE INSTALLATION Detail #EJ-171 recommendations, or TTMAC Specification Guide 09 30 00 Detail #301-MJ recommendations.
- ♦ DO NOT FILL EXPANSION JOINT SPACE UNTIL GROUTING IS COMPLETED on the remainder of the job.
- ♦ Install a suitable industry-approved compressible bead and flexible sealant to caulk expansion and control joints. Follow the sealant manufacturer's installation instructions.

Curing

- ♦ Do not over-water and protect from rain, weather and freezing until cured (24 hours)
- ♦ Protect from foot traffic for at least 3 hours at normal room temperature and humidity conditions.
- ♦ Do not allow floors to be exposed to heavy traffic and rolling loads such as forklifts, pallet trucks, loaded dollies, scissor lifts, etc. for a minimum of 48 hours after installation.
- ♦ Sanding, smoothing and finishing of the surface can be accomplished after about 1 hour from laying depending on prevailing temperature and humidity conditions.
- ♦ Allow at least 3-4 hours curing before setting ceramic or stone tiling, patching or self leveling, and at least 24 hours before laying wood, resilient or carpet flooring.
- ♦ For Wood flooring and resilient floor covering installations, ensure that the vapor moisture emission from the concrete slab and new screed does not exceed 1.36 kg per 93 m² (3 lb per 1 000 sq. ft.) per 24 hours when tested in accordance with the calcium chloride moisture emission test (ASTM F-1869) at time of installation.

Note: Drying time may vary depending on prevailing temperature and humidity conditions. **Do not attempt to accelerate drying and curing through forced ventilation, fans, blowers or auxiliary heaters.**

Cleaning

Clean tools and hands with water while the product is still fresh.

Health and Safety

Refer to the Safety Data Sheet (SDS) for complete details.

6. AVAILABILITY AND COST

PROMA products are widely available in Canada and the Northeast United States. To find a distributor of PROMA products, call **toll-free: 1.866.51.PROMA (77662)**.

7. WARRANTY

PROMA warrants that this product is manufactured using quality raw materials and is of merchantable quality and suitable for the purpose for which it was intended. PROMA's liability under this warranty shall be limited to the replacement of its product proven to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising from the use of/or the inability to use this product.

8. MAINTENANCE

Product requires no special maintenance.

9. TECHNICAL SERVICE

For more detailed information on this product, please contact our technical department for proper recommendations and job field assistance. **Toll-free: 1.866.51.PROMA (77662)**.

10. FILING SYSTEM

Additional information is available upon request, or by visiting www.proma.ca.



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