PRO CEMIX™

2. MANUFACTURER

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3. PRODUCT DESCRIPTION

PRO CEMIX™ is a polymer-modified, fast-setting, pre-blended, shrinkage-free, calcium aluminate cement-based mortar bed and screed mix designed for concrete repair and for building new screeds. PRO CEMIX is also used to repair concrete holes and fill trenches, slope shower, and build new mortar beds. PRO CEMIX allows foot traffic and ceramic tile installation after 3-4 hours and floor covering installation after 24-48 hours.

Features

- **Made with 50% recycled content**
- Generates high compressive strengths (> 37 MPa [> 5,400 psi])
- Apply from 10 mm (3/8") up to 10 cm (4") in thickness
- Shrinkage-free
- FAST-SETTING: 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 building cement floor screeds and mortar-beds
- For building wire-reinforced "Floating" cement-mortar screeds 35 mm (1-3/8") thick (minimum) or more
- For concrete slab repairs and levelling
- For use over a radiant heating floor slab system
- For building fast-setting sloped shower- floor concrete bases
- For filling holes and trenches
- For interior institutional, commercial and residential applications

Concrete

- 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 35°C (95°F). If temperatures are outside of this range, please contact our technical service department for appropriate recommendations.
- Do not apply directly over particleboard, chipboard, presswood, Lauan, masonite and other dimensionally unstable materials.
- Do not install where ice melting chemicals may be used.
- 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 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 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] wirefabric reinforcement.
- Do not use directly over a substrate subject to hydrostatic or rising moisture conditions or over an unstable substrate such as particleboard, pressedwood, Masonite, lauan and asbestos board. In such cases, a 40 mils thick polyethylene film (ASTM C 171/D 4397) or tar-felt [CSA A 123.3 – (Type 1)] must be installed before installing a free-floating PRO CEMIX reinforced screed of at least 35 mm (1 3/8") thick with 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.
- Do not leave permanently without floor covering or exposed as a wear surface material.
- 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.

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)dail	
Final set	45-60 minutes

PHYSICAL PROPERTIES @ 23° C [73° F] and 50% RH) WHEN MIXED AT 10.5% WATER	
VOC content	0 g/L
Compressive strength (ASTM C-109)	
3 hours	> 17 MPa (2,500 psi)
1 day	> 26 MPa (3,750 psi)
7 days	> 34 MPa (5,000 psi)
28 days	> 37 MPa (5,400 psi)
Flexural strength – ASTM C348	
28 days	> 7 MPa (1,000 psi)
Volume change	
28 days, dry-cured	< -0.05%
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")	0.47-0.50 m^2 (5.0-5.4 ft^2)
50 mm (2")	0.2-0.3 m^2 (2.5-2.7 ft^2)
Shelf life	
6 months if kept in its original unopened packaging and stored in a dry location.	

PRO SUPERPRIME™ / PRO SUPERPRIME™ 1C

PROMA has engineered revolutionary primers that can ready nearly any surface for mortar beds and concrete repair products without the need for scarifying or shotblasting. Use PRO SUPERPRIME or PRO SUPERPRIME 1C with PRO CEMIX as an exceptional system for preparing a substrate for flooring installation. Surface must meet a minimum of 0.5 MPa (72 psi) tensile bond strength. In areas subject to heavy traffic, a minimum of 1.2 MPa (175 psi) tensile bond strength is required (see respective technical data sheets for details).


Cured concrete (28 days)

Metal such as steel, copper, stainless steel, aluminum or lead

Exterior-grade plywood

Existing ceramic and quarry tiles, porcelain, granite and marble

Existing VAT, VCT, non-cushioned vinyl sheet goods, homogeneous PVC flooring

Adhesive residue

Painted substrates

5. INSTALLATION

Surface Preparation

(Refer to PROMA Surface Preparation Guidelines for complete details)

Note: PRO SUPERPRIME™ or 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 m^2 (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 engineerapproved 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 PRIM™E 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: 5 ½ parts powder to 1 part water (by volume)

1. Use clean mixing-tools and containers.
2. In a clean mixing container, measure and pour 2.4 L (0.63 US gal / 2.5 US quarts) of cool clean water or PRO SET™ PLUS and gradually add 22.7 kg (50 lb) of PRO CEMIX 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.

Do not overheat floors from basement during cold weather construction.

1. Spread PRO CEMIX 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 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 and Protection

- 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 3-6 hours 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 m^2 (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.
- Protect from dirt, dust and damage from other trades until fully covered by a floor covering or tiling material.

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. Do not leave without floor covering or exposed as a resurfacing material.

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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