PRO PATCH™ NM

(NON MODIFIED)

Mix Only with PRO PA-21™

2. MANUFACTURER

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3. PRODUCT DESCRIPTION

PRO PATCH NM™ (Non Modified), mixed with PRO PA-21 additive, is a fast-curing, two (2) component system, calcium aluminate cement-based compound for patching and leveling. This product can be applied from featheredge up to 1" (25 mm) in thickness, in a single application.

Features

- Apply from featheredge up to 1" (25 mm) thick indoor and up to ¼" (6mm) thick outdoor
- Ultra-creamy consistency
- FAST-SETTING: install flooring after only 60 – 90 minutes (thin application)
- Mix only with PRO PA-21
- For interior/exterior institutional, commercial and residential applications
- Compatible with all adhesives, and floor coverings including wood parquet and rubber
- Blocks pH when installed greater than 3 mm (1/8") thick
- Shrinkage compensated
- Can be applied over substrates up to 90% RH per ASTM F2170
- Water resistant, non Gypsum-based formula
- Will not promote mold, mildew or bacteria growth
- 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

18 kg (40 lb) bag

Concrete *Exterior-Grade Plywood*

Suitable Substrates

- Dry, completely cured concrete (at least 28 days old)
- Concrete and masonry blocks
- Cement backer units (CBU)
- Gypsum and light-weight concrete surfaces†
- Existing ceramic and quarry tiles, porcelain, granite and marble†
- Epoxy Terrazzo floors*
- Cementitious Terrazzo floors*
- 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 VCT tiles and non-cushioned vinyl sheet goods*
- Cementitious screeds, rendering, leveling coats and mortar beds
- Homogeneous PVC flooring*
- Resin-based floor coverings (epoxy, urethane or polyurethane)*

† *When primed with PRO PA-21™, PRO SUPERPRIME™ or PRO PRIME™ LP (see respective data sheet for details)*

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

Limitations

- Do not use at temperatures below 10°C (50°F) or above 35°C (95°F).
- Do not mix with water, mix only with PRO PA-21.
- Do not use for applications exceeding 25 mm (1") in thickness indoor. For installations exceeding 25 mm (1") indoor, please contact our technical department for further assistance.
- Do not use for applications exceeding 6 mm (1/4") in thickness outdoor. For installations exceeding 6 mm (1/4") outdoor, please contact our technical department for further assistance.
- Do not apply directly over particleboard, chipboard, presswood, Lauan, masonite, OSB and other dimensionally unstable materials.
- Do not use over any type of cushioned flooring surface.
- Allow the patching product to dry properly prior to installing the floor covering.
- Do not leave without floor covering or exposed as a resurfacing material.
- Existing epoxy terrazzo floors, metal, PVC flooring or epoxy-resin floors must be well prepared and primed with PRO SUPERPRIME™ or PRO SUPERPRIME 1C™ prior to installing the patching product (see respective technical data sheet for details).
- Existing ceramic tiles, composite vinyl tiles, cementitious terrazzo floors or old cut-back adhesives must be properly prepared and primed with PRO SUPERPRIME™ or PRO SUPERPRIME 1C™ prior to application (see respective technical data sheets for details).
- Existing Gypsum and light-weight concrete surfaces must be properly primed with PRO PA-21™, PRO SUPERPRIME™, or PRO PRIME™, LP (see respective technical data sheet for details).
- Do not use where high moisture and hydrostatic conditions and/or recurring moisture problems exist.
- Do not use in places subject to immersion, to standing water or permanent humidity.
- Do not add water or PRO PA-21 to the mix once it begins to thicken.
- Do not add sand or aggregate to the mix.
- Protect from any direct air ventilation or heat radiation source, such as direct sunlight, during and after the installation, for a minimum of 24 hours. These conditions could cause the patching 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.

PHYSICAL PROPERTIES (@23° C [73° F] and 50% RH)	
Pot life	15 minutes
Final set	45 minutes
Time before installing floor covering	60-90 minutes
Time before installing ceramic tile	1-3 hours

MECHANICAL PROPERTIES (@23° C [73° F] and 50% RH)	
VOC content	0 g/L
Volume change (meets ASTM C-928)	
28 days, dry cured	< -0.05%
Flexural Strength (ASTM C-348)	
28 days	> 6.9 MPa (1,000 psi)
Tensile Bond Strength (ASTM C1583 (CSA CAN/A23.2-6B)	
28 days	> 2.0 MPa (300 psi) (failure in concrete substrate)
Compressive strength (ASTM C-109)	
3 hours	> 11.0 MPa (1,600 psi)
1 day	> 20.0 MPa (2,900 psi)
7 days	> 29.6 MPa (4,300 psi)
28 days	> 32.4 MPa (4,700 psi)
Approximate coverage per 18 kg (40 lb) bag	
Thickness	**Coverage**
3 mm (1/8")	3.7 m^2 (40 ft^2)
6 mm (1/4")	1.9 m^2 (20 ft^2)
13 mm (1/2")	0.9 m^2 (10 ft^2)
Shelf life	
12 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™ or PRO SUPERPRIME 1C™ can be used to ready nearly any surface for PROMA patching compounds without the need for scarifying or shotblasting, saving valuable time and money (see respective technical data sheet for details).

- All supporting surfaces must be structurally sound, solid and stable.
- 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, slightly 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 PA-21™, PRO SUPERPRIME™, or PRO PRIME™, LP (see respective technical data sheet for details).
- Smooth concrete substrate surfaces must be either PRIMED with PRO SUPERPRIME™ or PRO SUPERPRIME 1C™ primer **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 patching compound (please refer to the PRO PA-21™, PRO SUPERPRIME™ or PRO SUPERPRIME 1C™ respective technical data sheet for full details).
- Existing concrete slabs with old cutback adhesive or carpet adhesive residues must be properly scraped, roughened and cleaned. Then, **PRIME** the surface with PRO PA-21™, PRO SUPERPRIME™, or PRO SUPERPRIME 1C™ prior to the application of the patching product (please refer to the Surface Preparation Guidelines and respective technical data sheets for full details or contact our Technical Service Department for appropriate recommendations).
- Existing ceramic tile, VCT and non-cushioned vinyl sheet goods should be properly prepared, cleaned and **PRIMED** with PRO SUPERPRIME™ or PRO SUPERPRIME 1C™ prior to the application of the patching product (please refer to the Surface Preparation Guidelines and respective technical data sheets for full details or contact our Technical Service Department for appropriate recommendations).

  Note: Scrape off as much as possible of the old cut-back adhesive.

  Do not use sweeping compounds. This could leave an oily film on the concrete surface that will prevent a proper bond.

Mixing

Mixing ratio: 3 1/3 parts powder to 1 part PRO PA-21™ (by volume)

1. Use clean mixing-tools and containers.
2. In a clean mixing container, measure and pour approx. **3.45 L (0.9 US gal / 3.65 US quarts)** of PRO PA-21™ and gradually add 18 kg (40 lb) of PRO PATCH NM™ powder mix, while mixing slowly.
3. Using a low-speed mechanical mixer (150 - 300 rpm), mix until a homogeneous, smooth, lump-free, consistency is achieved.
4. The product is now ready for use.
5. 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 PATCH NM immediately after mixing with the flat side of a trowel to the desired texture and finish.
2. Do not mix more material than can be used in an 15 minute period.
3. 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. CAUTION: DO NOT cut EXPANSION JOINTS in after the tiles have been installed. Install tiles normally and stop when the control joint location is reached. Cut the tile if required and resume setting from the opposite side of the joint. Before proceeding further, rake the joint and leave the tile and joint space clean.
- 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

- 1-3 hours at room temperature (foot traffic).
- Install floor covering after 60-90 minutes, up to 24 hours for thicker applications.
- Install ceramic tiles, porcelain or natural stones after 1-3 hours.
- Material should be completely dry prior to applying the floor covering adhesive.

  Note: Drying time may vary depending on the temperature and humidity level. **Do not attempt to accelerate drying and curing through forced ventilation, fans or heat-blowers.**
- Ensure that the moisture vapor emission of the concrete 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) prior to the installation of a resilient floor covering or other material sensitive to water.
- Protect from traffic and dust until floor covering is completely installed.

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.

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 PATCH NM mixed with PRO PA-21as an unbeatable 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 sheet 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

Cement and Epoxy Terrazzo Floors

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

Adhesive residue

Painted, and sealed substrates such as PRO BLOCK™ MMS ECO

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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