PRO 2100™

2. MANUFACTURER

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3. PRODUCT DESCRIPTION

PRO 2100™ is a very low sag, high-performance, solvent-free, two-component reactive adhesive specially formulated for installing most types of ceramic, porcelain tiles and moisture-sensitive natural stone (namely green, red or black marble and their agglomerate), PVC sheet, wood plank, rubber floor covering, carpet over conventional and non-conventional substrates such as concrete, steel or suitably prepared plastics materials*. Recommended for horizontal or vertical application. Its high-bond strength and extreme flexibility characteristics provide added protection from vibration and small in-plane expansion or contraction movement, ideal for elevator cabins and manufacturing plants.

Features

- Suitable for horizontal or vertical application
- For interior and exterior installations over most conventional and non-conventional substrates
- For setting most types of ceramic, porcelain tiles and moisture-sensitive natural stones
- Excellent resistance to humidity and wide temperature variation
- High bond strength – use for residential, commercial and industrial traffic areas
- Easy to spread with very high sag resistance
- Remains flexible after curing
- Ideal for installations over fireplace surrounds elevator cabins and manufacturing plants up to 250 °C
- Very low VOC with 100% solid content once cured.

Packaging

5.4 kg (1.0 U.S. gal) kit; 8.6 kg (1.3 US gal) kit

Suitable Substrates

- Dry, clean and completely cured concrete (at least 28 days old)
- Concrete and masonry blocks
- Cement backer units (CBU) conforming to or exceeding ANSI A118.9 standard requirements
- Cementitious screeds, rendering, leveling coats and mortar beds
- Double layered EXTERIOR Grade Douglas Fir Plywood, certified CANPLY (SELECT) or (SEL-TF) CSA 121, minimum 32 mm (1 1/4") total thickness, for INTERIOR Residential Light-duty Floors and countertops, in dry areas only.
- Existing VAT and VCT tiles, non-cushioned vinyl sheet goods and linoleum (interior use only)**
- Suitably prepared plastic or composite materials*.
- Over well bonded vinyl sheet, VCT tiles, ceramic tile, natural stone, cementicious or epoxydic Terrazzo floors.
- Terrazo or polished natural stone should be slightly abraded with a sanding disk and cleaned to improve adhesion.
- Steel or aluminium***

** Contact our technical representative for specific recommendation.*

*** With adequate prior preparation as indicated in PROMA's "SURFACE PREPARATION GUIDELINES"*

**** If needed clean as follow: (1) Tissue wipe using MEK. (2) light abrasion with orbital sander using a Scotch Brite 7447 marron pad. (3) Tissue wipe again using IPA.*

Limitations

- Do not use at ambient and/or substrate temperatures below 10°C (50°F) or above 40°C (104°F). Make sure there is no condensation or water on the steel or any substrate. At low temperature, the curing time will take longer than expected and the viscosity will increase.
- All substrates must be dry, solid, sound, clean, and free of dust, dirt, oil, paint, grease, sealers, curing agents, loose particles and debris.
- The substrate must be dry and completely cured. The moisture vapour emission must not exceed 1.26 kg per 100 m^2 (3.0 lb per 1 000 sq. ft.) per 24 hours when tested with the calcium chloride tester (ASTM F-1869).
- Do not use for installation of white, light–colored or translucent marble for which a white mortar is recommended.
- Do not use directly over particleboard, chipboard, lauan, Masonite and other dimensionally unstable or non-recommended substrate materials such as friable Gypsum-based leveling and patching compounds technology.
- Do not use where hydrostatic or recurrent moisture conditions exist.
- Do not use for installations subject to prolonged water immersion.
- Do not use over cracks exceeding 1.5 mm (1/16").
- Do not use over expansion and control joints.

4. TECHNICAL DATA

WORKING PROPERTIES (@22° C [72° F] and 50% RH)	
Open time*	30-60 minutes
Initial set*	3-4 hours
Final set*	12-48 hours

*Required time will be longer if temperature is colder.

PHYSICAL PROPERTIES (@22° C [72° F] and 50% RH)	
VOC content	9 g/L
Tensile strength	> 2 N/mm^2
Elongation (%)	> 150%
Flash point	N/A
Freeze-thaw stability	Stable
Temperature resistance	Up to 250°C (482°F)
Maximum tolerance of moisture content into substrate	3.0 lb per 1000 sq feet per 24 hours
Approximate coverage per 5.4 kg (1 U.S. gal) kit	
Notched trowel	**Coverage**
0.8 x 1.6 x 0.8 mm (1/32"x 1/16"x 1/32") U-shaped	15 m^2 (160 ft^2)
4.8 x 3.2 x 3.2 mm (3/16" x 1/8" x 1/8") V-shaped	5 m^2 (55 ft^2)
4 x 4 mm (5/32" x 5/32") V-shaped	3 m^2 (33 ft^2)
6 x 6 x 6 mm (1/4" x 1/4" x 1/4") square-shaped	2 m^2 (21 ft^2)
Shelf life	
18 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)

- All supporting surfaces must be structurally sound, solid, stable, level, dry, 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) 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.
- Floor should be 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.
- On grade or below grade concrete slabs must be installed over an effective vapor barrier.
- Due to various porosity of very smooth concrete substrate, a bond test should be performed to insure adequate compatibility. If an adequate bond is not achieved, the concrete should be roughened in accordance with an engineer-approved procedure (shotblasting, scarification, grinding, sand or water-blasting, etc.) to provide sufficient surface texture and profile for adequate bonding of the product.
- For ceramic and porcelain tiles up to 30 x 30 cm (12" x 12"), the structural design of the wood substrate must not allow a deflection greater than L/360 when tested to 136 kg (300 lb) concentrated loads in accordance with ASTM C627 Standard test method. For square and rectangular tiles with one edge dimension 38 cm (15") and 45 cm (18") up to 58 x 58 cm (23" x 23") the maximum deflection should not exceed L/540 unless an effective CIM (crack isolation membrane) is used in the installation system. **For tiles 60 x 60 cm (24" x 24") or larger and for ALL dimension stone installation, the maximum deflection must not exceed L/720.**

Mixing

NOTICE: Prolonged contact with Part B may cause skin irritation. Wear rubber gloves during mixing and application. Wear safety goggles while handling Part B and mixing. If swallowed, consult a physician or call the anti-poison centre. In case of contact with eyes, rinse with plenty of water and obtain medical assistance.

1. Pour entire contents of Part B (liquid) into the larger pail containing Part A.
2. Stir mechanically with a low speed mixer (150 to 300 RPM) to achieve a homogeneous paste consistency. Do not over-mix or entrap air as this will reduce pot life.
3. **Mix full units ONLY.** Do not mix partial units.
4. Use mix within 1 hour.

Application

1. Use the appropriate notched trowel with sufficient depth to achieve a 90% minimum adhesive contact with the flooring material backing, stone, PVC wall cladding or other type panel. For exterior installations, it is essential that the backing of the flooring material be completely covered with the adhesive to ensure 100% backside transfer.
2. With the notched side of the trowel, spread a uniform coat of adhesive onto the substrate keeping the ridges going in ONE direction.
3. Install flooring into the adhesive immediately, while still fresh and moving slightly, back and forth across the ridge to remove air pockets underneath.

   NOTE: Floor temperature directly affects the setting time of the product. The warmer it gets, the faster it sets and viscosity decreases.
4. Check periodically the proper transfer of the adhesive to the floor material backing.
5. Promptly, clean out all joints and wipe smudges off the floor covering material as recommended below while the adhesive is still fresh. ONCE CURED, PRO 2100 IS EXTREMELY DIFFICULT TO REMOVE.

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 Grouting

- Do not step on floors and protect area from light foot traffic for at least 3 hours, regular foot traffic for at least 12 hours, and heavy traffic for at least 48 hours depending on temperatures and humidity conditions.
- Protect walls from water contact, impact and vibration for at least 24 hours.
- Allow at least 3 hours from installation before grouting tiles.
- Protect all new installation from weather and freezing for at least 14-21 days.

Note: Extended protection and downtime requirements before grouting may be required depending on temperature and humidity conditions.

Cleaning

Clean tools or spills with isopropyl alcohol or mineral spirit while material is still fresh, insure that the selected solvent will not alter the color or aspect of any sensitive flooring material.

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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