



# Pro Bond Plus System™

## Premium-Quality, High-Performance Installation System

The Pro Bond Plus System is a premium-quality, high-performance solution for installations requiring extreme bond strength and flexibility. Interior or exterior, freeze/thaw, high-traffic, water-submerged... nearly any environment is suitable for the Pro Bond Plus System. Install tile or stone of almost any type or size over the widest range of substrates. Strong, yet extremely flexible, the Pro Bond Plus System is a great solution for the toughest installations. When in doubt? You can't go wrong with the Pro Bond Plus System. The Pro Bond Plus System is **Pro Bond powder + Pro Bond Plus additive**.

### Uses

- ◆ Use over the widest range of suitable substrates
- ◆ Install most types and sizes of tile and stone
- ◆ Use for interior, exterior, freeze/thaw, water-submerged, and other demanding installations such as pools, shopping malls, airports, etc.
- ◆ For industrial, commercial and residential floor and wall applications
- ◆ Ready for grout after 24 hours
- ◆ For use over a radiant floor heating system
- ◆ Exceeds ANSI A118.4 and ANSI A118.11 requirements
- ◆ Contributes to LEED® objectives and requirements

### Suitable Substrates

- ◆ Dry, completely cured concrete (at least 28 days old)
- ◆ Concrete and masonry blocks
- ◆ Cement backer units (CBU)
- ◆ Cementitious screeds, rendering, leveling coats and mortar beds
- ◆ Proma's Pro MBR, waterproofing and Pro CBM, crack-isolation membranes
- ◆ Gypsum wallboard (INTERIOR dry areas only)
- ◆ Double layered EXTERIOR Grade Douglas Fir Plywood, certified CANPLY (SELECT) or (SEL-TF) CSA 121, minimum 32 mm (1 ¼") total thickness, for INTERIOR Residential Light -duty Floors and countertops, in dry areas only.
- ◆ Existing ceramic tiles (interior applications) \*
- ◆ Cementitious Terrazzo floors \*
- ◆ Old Cut-back adhesive residue \*
- ◆ Existing VAT and VCT tiles, and non-cushioned vinyl sheet goods\*

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



CONCRETE    EXTERIOR-GRADE PLYWOOD    CUTBACK ADHESIVE RESIDUE    EXISTING VAT, VCT AND NON-CUSHIONED VINYL SHEET GOODS    EXISTING TILE



### Packaging and Colors

Pro Bond: 22.7 kg (50 lb) bag; grey and white

Pro Bond Plus: 7.5 L (2 US gal) jug ; 20 L (5.3 US gal) pail; 200 L (53 US gal) drum

Pro Bond Plus KIT: 8 kg (17.6 lb); 13.2 kg (29 lb); grey and white

### Limitations

- ◆ Do not use at temperatures below 10°C (50°F) or above 35°C (95°F).
- ◆ Do not apply directly over particleboard, chipboard, presswood, Luan, masonite, OSB, Gypsum-based leveling and patching compounds and all dimensionally unstable or non-recommended substrate materials such as metal or epoxy-resin floors.
- ◆ Do not use for the installation of green marble and other moisture sensitive stones that react to standard cement mortars and setting materials containing water. Instead, for setting these stones use **EXCLUSIVELY** Pro Superpoxy™2 or Pro Seal & Set™ (see the respective technical data sheet). For the installation of white, pastel or translucent marble, use only WHITE formula.
- ◆ Do not use where high moisture and hydrostatic conditions and/or recurring moisture problems exist.

### Surface Preparation *(Refer to Proma Surface Preparation Guidelines for complete details)*

- ◆ All supporting surfaces must be structurally sound, solid, stable, level, plumb, level and true to a tolerance in plane of ¼" in 10'-0" (6 mm in 3 m) in accordance with ANSI A108 Specifications requirements.
- ◆ 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.
- ◆ Smooth concrete substrate surfaces must be mechanically roughened in accordance with an engineer-approved procedure (Shot-blasting, scarification, grinding, sand or water-blasting, etc) to completely remove all paint, loosely bonded toppings, loose particles and contaminants and to provide sufficient surface texture and profile for the adequate bonding of the subsequent leveling and/or tile setting mortar products.
- ◆ For ceramic and porcelain tiles up to 30 x 30 cm (12" x 12"), the structural design of the 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.**



# Pro Bond Plus System™ (continued)

## Mixing

1. Use clean mixing-tools and containers.
2. In a clean mixing container, measure and pour **7.5 L [2 US gal]** of Pro Bond Plus Additive and gradually add 22.7 kg (50 lb) of Pro Bond Plus 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. Let the mortar sit approximately 10 minutes; remix without adding any more water or powder-mix.
5. The product is now ready for setting.
6. During the setting, keep the mortar-mix fresh & smooth by periodically re-stirring the inside of the bucket without ever adding water or Pro Bond Plus additive.
7. Clean tools and hands with water while the mortar is still fresh.

## Application

1. Pressure-apply the mortar with the flat edge of the recommended notched-trowel to promote a positive bond and completely cover the substrate.
2. **IMMEDIATELY AS YOU GO** (without delay) and before skinning or drying occurs, apply a sufficient mortar layer and, using the notched side of the trowel, ridge in a straight-line directional pattern to achieve an even setting bed. For walls, maintain ridges running in a horizontal directional pattern.
3. Do not spread more mortar than can be covered with tiles within 20 minutes [Approx. 20 sq ft (2 m<sup>2</sup>)].
4. If the mortar dries or skins-over, it must be removed and replaced with fresh mortar.
5. Place tiles firmly with a slight back and forth motion across ridges and tamp tiles repeatedly to achieve at least an 85% mortar contact with the tile back (95% in wet areas, commercial floors and exterior installations and 100% for natural stone installation).
6. Tiles should be embedded in the mortar to at least 1/3 of their thickness.
7. Remove excess mortar from grout space and wipe-off blotches and smears immediately while mortar is fresh.

## 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 foot traffic for at least 24-48 hours, depending on temperatures and humidity conditions.
- ♦ Protect walls from water contact, impact and vibration for at least 24 hours.
- ♦ Allow at least 16-24 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 and on the porosity and size of the tile or stone being installed.

## 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.

### Technical Data for Pro Bond Plus System grey (@ 23°C [73°F] and 50% RH)

<b>Pot life:</b> .....	≥1 hour
<b>Open time:</b> .....	≥15 minutes
<b>Initial cure:</b> .....	16-18 hours
<b>Final cure:</b> .....	28 days
<b>Adjustability:</b> .....	35-45 minutes
<b>VOC content:</b> .....	0 g/L (summer formula – ideal for LEED projects) 75.1 g/L (winter formula – ideal for freeze/thaw stability during transport)
<b>Shear Strength per ANSI A118.4 tests (at 28 days) :</b>	
Quarry tile to plywood .....	350 psi (2.42 MPa)
<b>Approximate coverage per 22.7 kg (50 lb) bag</b>	
Notched trowel .....	Coverage
6 mm x 6 mm x 6 mm (1/4" x 1/4" x 1/4") .....	7.5 m <sup>2</sup> (80 ft <sup>2</sup> )
6 mm x 10 mm x 6 mm (1/4" x 3/8" x 1/4") .....	6.0 m <sup>2</sup> (65 ft <sup>2</sup> )
19 x 16 x 8 mm ( 3/4" x 5/8" x 5/16") U-notch trowel .....	2,5 m <sup>2</sup> (27 ft <sup>2</sup> )

### Shelf life

12 months if kept in its original unopened packaging and stored in a dry location.

### Health and Safety

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

## Contact Information

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