

# Pro HPX Mortar™

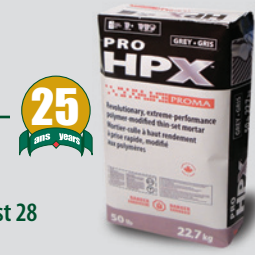
## Revolutionary, Extreme-Performance, Flexible, Anti-Fracture, Slump Resistant Polymer-Modified Thin-Set Mortar

Pro HPX Mortar is a **revolutionary** premium-quality, extreme-performance polymer-modified mortar that gives you the power of a two-part system in a one-part product. Pro HPX Mortar is the only polymer-modified mortar that can truly replace expensive two-part systems for installations requiring extreme bond strength and flexibility; interior, exterior, freeze/thaw and heavy-traffic durability; water-submerged performance . . . nearly any environment is suitable for Pro HPX! Install tile or stone of almost any type or size over the widest range of substrates bridging cracks in plane up to 1/4" (6 mm).

*Strong, yet extremely flexible, Pro HPX Mortar is the only polymer-modified solution for the toughest installations, even **gaining strength** over time when submerged under water!*

### Uses

- ◆ Use over the widest range of suitable substrates
- ◆ For setting non-vitreous, semi-vitreous, vitreous and impervious ceramic and porcelain tiles, mosaics, pavers, glass tiles and quarry tiles
- ◆ For the installation of white, pastel or translucent marble
- ◆ 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 16-24 hours
- ◆ Install over cracks in plane up to 1/4" (6 mm)
- ◆ For use over a radiant floor heating system
- ◆ For installing interior/exterior brick veneer
- ◆ Slump resistant for floor installations of large-format ceramic, porcelain, and natural stone tiles
- ◆ 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, properly primed)
- ◆ 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 ceramic tiles (interior applications) \*
- ◆ Cementitious Terrazzo floors \*
- ◆ Old Cut-back adhesive residue \*
- ◆ Plastic laminate surfaces (interior countertops only)\*
- ◆ Existing VAT and VCT tiles, and non-cushioned vinyl sheet goods\*

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

### Packaging and Colors

- 4.54 kg (10 lb) box, white
- 11.34 (25 lb) bag, white
- 22.7 kg (50 lb) bag, 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 unless primed with Pro SuperPrime™ (see respective technical data sheet).
- ◆ 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 Grout Xtreme™ 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 for installing glass tile with an epoxy finish backing and no synthetic mesh. For such installation, use instead Pro Grout Xtreme White (see respective technical data sheet).
- ◆ Do not use where high moisture and hydrostatic conditions and/or recurring moisture problems exist.
- ◆ When using Pro HPX Mortar over a radiant heating system (previously checked for good functioning), turn the system off 24 hours prior to the installation and wait at least 2 weeks before turning it back on.



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



## Pro HPX Mortar™ (continued)

### 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.**

**Note:** Do not overheat floors or basement during cold season construction. These conditions could cause the product to cure too rapidly and affect its performance.

### Mixing

#### Mixing ratio: 2 3/4 parts powder to 1 part water

1. Use clean mixing-tools and containers.
2. In a clean mixing container, measure and pour **5.45 L [5.76 quarts / 1.44 US gal]** of cool clean water and gradually add 22.7 kg (50 lb) of Pro HPX Mortar 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.
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.

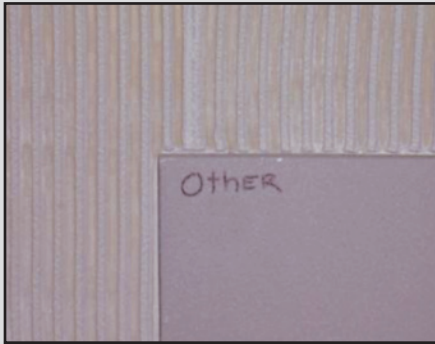
### Expansion and Control Joints

- ◆ 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.

## Pro HPX Mortar vs. The Competition

Pro HPX Mortar is a **revolutionary** polymer-modified thin-set mortar that has no equal. In side-by-side tests with competing products, Pro HPX Mortar is easier to apply, more flexible and has unbeatable strength - **See for yourself below!**

### Competing Polymer-Modified Thin-Set Mortar



*Competing polymer-modified products vary in performance, sometimes providing weak bonds to difficult substrates, such as plywood.*

### Pro HPX Mortar



*Pro HPX Mortar creates tenacious bonds to all approved substrates, performing as good or better than a two-component system in even the most demanding installations!*

# Pro HPX Mortar™ (continued)

## Curing and Grouting

- ◆ Do not step on floors and protect area from foot or heavy 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.

## Contact Information

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

- Pot life:** ..... ≥ 1 hour
- Open time:** ..... ≥ 15 minutes
- Initial cure:** ..... 16-18 hours
- Final cure:** ..... 28 days
- Adjustability:** ..... 35-45 minutes
- Time required before water immersion (once grouted):** ..... > 14 days
- VOC content:** ..... 0 g/L

### Shear Strength per ANSI A118.4 tests (at 28 days) :

- Quarry tile to plywood ..... > 350 psi (2.42 MPa)\*
- \*plywood typically failed*

### Approximate coverage per 22.7 kg (50 lb) bag

- 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.

09 31 00  
THIN-SET TILING

SETTING MATERIALS / POLYMER-MODIFIED MORTARS  
Pro HPX Mortar

