



PRO SCREED™ (4:1 RATIO)



2. MANUFACTURER

PROMA ADHESIVES Inc.
 9801, Parkway, Anjou, Quebec Canada H1J 1P3
 Tel.: 514.852.8585
 Fax: 514.852.8225
 Toll-free: 1 866.51.PROMA (77662)
 Email: info@proma.ca
 Web: www.proma.ca

3. PRODUCT DESCRIPTION

PRO SCREED™ is a fast-setting, Portland based preblended mortar mix (4:1 ratio). It can be used as a mortar bed or as a screed mortar from 10 mm (3/8") up to 8 cm (3") thick. PRO SCREED can be mixed with water or with PRO SET PLUS™ for improved performance.

Features

- ♦ Use for minor leveling and substrate correction from 10 mm (3/8") up to 8 cm (3") thick
- ♦ Use as a floating bed if thicker than 32 mm (1 1/4")
- ♦ For interior and exterior institutional, commercial and residential applications
- ♦ Contributes to LEED® objectives and requirements

Packaging

25 kg (55 lb) bag

Suitable Substrates

- ♦ Dry, completely cured concrete (at least 28 days old)⁰ †
- ♦ Cement backer units (CBU)⁰ †
- ♦ Gypsum and light-weight concrete surfaces[†]
- ♦ Existing ceramic and quarry tiles, porcelain, granite and marble †
- ♦ Cementitious and Epoxy 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 VAT and VCT tiles, and non-cushioned vinyl sheet goods[†]
- ♦ Homogeneous PVC flooring †
- ♦ Resin-based floor coverings (epoxy, urethane or polyurethane)[†]
 - ⁰ When primed with a slurry bond coat made of a PROMA polymer-modified mortar, PRO SCREED must be poured into a wet slurry.
 - [†] When primed with PRO SUPERPRIME™ (see respective data sheet for details), PRO SCREED must be applied when primer is still wet.

Limitations

- ♦ For INTERIOR installations, mix with water. For exterior installations or for wet areas, mix with PRO SET PLUS.
- ♦ Do not use at temperatures below 10°C (50°F) or above 35°C (95°F).
- ♦ Do not use on vertical surfaces.
- ♦ Do not install where ice melting chemicals may be used.
- ♦ Do not mix with other cements, lime, plaster, or similar materials.
- ♦ Do not featheredge - minimum mortar thickness: 10 mm (3/8"). For thin repairs and levelling, use PRO LIQUID FINISH RS™, PRO PLAN™ or PRO PATCH™ instead (see respective technical data sheet).
- ♦ Do not use for applications exceeding 8 cm (3") in thickness. For installations exceeding 8 cm (3") in thickness, contact our technical department for proper recommendations.
- ♦ Allow the mortar product to dry properly prior to installing the floor covering.
- ♦ Do not leave without floor covering or exposed as a resurfacing material.
- ♦ Avoid contact with Aluminium and metal sidings, railings, bars, windows and accessories. Insulate such areas by applying an appropriate epoxy coating.
- ♦ Existing ceramic tiles, composite vinyl tiles, terrazzo, metal, epoxy-resin floors or old cut-back adhesives must be well prepared and primed with PRO SUPERPRIME™ prior to installing the mortar product (see respective technical data sheet).
- ♦ Protect re-bars, posts and structural elements with an effective epoxy resin coating (Contact PROMA's Technical Service Department for proper advice and recommendations).
- ♦ Do not use directly over a substrate that is subject to hydrostatic pressure, humidify problems or over dimensionally unstable substrate such as particleboard, chipboard, presswood, Luan, Masonite, OSB, asbestos board or steel. In such cases, a vapor barrier of either polyethylene sheeting or tar-paper must be installed before a floating concrete screed of a minimum thickness of 32 mm (1 1/4") with wire netting reinforcement built.
- ♦ Do not apply on any type of cushioned flooring.
- ♦ **Do not accelerate curing time by using ventilators or heating appliances. Avoid overheating floors from the basement during cold season construction.**



Concrete



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)	
Working time	>60 minutes
Initial cure	4-6 hours
Final cure	28 days

PHYSICAL PROPERTIES (@23° C [73° F] and 50% RH)	
VOC content	0 g/L
Compressive strength (ASTM C-109) @ 28 days Mixing ratio: 11.5% water	> 288 kg/cm ² (4,100 lb/ft ²)
Approximate coverage per 25 kg (55 lb) bag	
Thickness	Coverage
25 mm (1")	0.56 m ² (6 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™ can be used to ready nearly any surface for PROMA leveling underlayments 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 m² (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 (see respective technical data sheet for details).
- ♦ Smooth concrete substrate surfaces must be either PRIMED with PRO SUPERPRIME 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 mortar product. Then, PRIMED with PRO SUPERPRIME (see respective technical data sheet for details).
- ♦ Existing concrete slabs with old cutback adhesive or carpet adhesive **residues** must be scraped, roughened, cleaned, properly prepared and PRIMED prior to the application of the mortar product. (Refer to the Surface Preparation Guidelines and PRO SUPERPRIME technical data sheet for full details or contact our Technical Service Department for appropriate recommendations).
- ♦ Wood substrate must be solid and well-supported by joists spaced 400 mm (16") apart and should consist of two superimposed plywood sheet layers, each 16 mm (5/8") thick and set with a minimum of 3 mm (1/8") gap spacing between panels and 6mm (1/4") gapping along the perimeter walls, around columns, posts, drains and pipe openings. The top underlayment plywood layer must be fastened with non-oxidizing floor screws at every 15 cm (6") along panel edges and each way throughout the panel at 20 cm (8") centers. Floor surfaces along adjacent edges of panels must not be more than 0.75 mm (1/32") above or below each other. 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. (Refer to ANSI A108. 01 requirements for Plywood sub-floors)**
- ♦ Existing ceramic tile, VCT or hard to bond to surfaces should be PROPERLY PREPARED, CLEANED and PRIMED with PROMA's PRO SUPERPRIME primer prior to the application of the mortar product. (Refer to the Surface Preparation Guidelines and PRO SUPERPRIME technical data sheet for full details or contact our Technical Service Department for appropriate recommendations)

Notes: 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: 5 parts powder to 1 part water (by volume)

1. Use clean mixing-tools and containers.
2. In a clean mixing container, measure and pour approx **2.9 L (0.76 U S gal / 3 US quarts)** of cold clean water or of PRO SET PLUS and gradually add 25 kg (55 lb) of PRO SCREED, 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 setting.
5. Use the product within the shortest possible delay (within a few minutes).

Application

Note: Close all doors, windows and openings and protect work from wind, cross-ventilation and heat radiation source, such as direct sunlight, during and after the installation.

Do not overheat floors from basement during cold weather construction.

CONCRETE REPAIR, ramps, slopes and bonded screeds.

1. Prime reinforcing steel with an appropriate epoxy primer (consult the technical department for the appropriate PROMA product recommendation).
2. Prime surfaces with PRO SUPERPRIME™ prior to installing the mortar product (see respective technical data sheet).

Important Note: Apply the concrete repair mortar onto the WET primer before it dries.

4. Scrub the prepared mortar onto the substrate filling all pores and voids to promote a positive bond and complete coverage of the substrate.
5. Set, compact , tamp, level and screed the PRO SCREED mortar to the required thickness and finish using the same techniques, tools, floats, levels and straight-edges as for regular cement screeds.
6. Do not featheredge: concrete repairs must be at least 10 mm (3/8") deep. Saw cut perimeter edges.
7. Within 30 minutes maximum from mixing, level and screed the surface with a metal straightedge or scraper while tamping with the float as work progresses.
8. To avoid cracks, splits, overlaps and warps at cold joints or when the work is to be stopped for more than 1 hour, insert several 3 mm (1/8") to 6 mm (1/4") diameter rod size metal dowels, 20 cm (8") to 30 cm (12") long, set horizontally at mid-bed at about every 20 cm (8") to 30 cm (12") gapping distance along the open cold edge of the freshly-applied and fresh mortar-bed.
9. Finish-off the surface to the required texture using a light broom, a wood float or a smooth metal finishing trowel as required.

FLOATING MORTAR BED AND SCREED

1. Build a uniform even sand cleavage bed or if the slab is already smooth and even, lay a 0.76 mm (40 mil) (ASTM C171/D4397) polyethylene sheeting.
2. Dump, spread, compact and tamp the PRO SCREED mortar-bed mixture to approximately + 20 mm (3/4") or about half the usually required standard bed thickness. Insert a corrosion resistant (50 x 50 mm [2" X 2"] CSA G 30.5-M or ASTM A 185 M) metal reinforcing fabric and dump, spread, tamp, level and screed the remaining layer to the required slopes, thickness (Minimum 35 mm [1-1/2"] and finish using the same techniques, tools, floats, levels and straight-edges as for regular cement screeds.
3. Within 20 minutes from mixing, level and screed the surface with a metal straightedge or scraper while tamping with the float as work progresses.
4. To avoid cracks, splits, overlaps and warps at cold joints or when the work is to be stopped for more than 1 hour, insert several 3 mm (1/8") to 6 mm (1/4") diameter rod size metal dowels, 20 cm (8") to 30 cm (12") long, set horizontally at mid-bed at about every 20 cm (8") to 30 cm (12") gapping distance along the open cold edge of the freshly-applied and fresh mortar-bed.
5. Finish-off the surface to the required texture using a light broom, a wood float or a smooth metal finishing trowel as required.

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 SUPERPRIME™

PROMA has engineered a revolutionary primer that can ready nearly any surface for mortar beds and concrete repair products without the need for scarifying or shotblasting. Use PRO SUPERPRIME with PRO SCREED 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 sheet for details).



	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
Cured concrete (28 days)						

Curing

Material should be completely dry prior to installing tile.

Cleaning

Clean tools and hands with water while the product is still fresh.

Health and Safety

Refer to the Material Safety Data Sheet (MSDS) 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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