



# PRO FLOWLEVEL™ 40

## 2. MANUFACTURER

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## 3. PRODUCT DESCRIPTION

PRO FLOWLEVEL™ 40 is a high-strength, high-performance, quick-setting, **low-prep**, single component, polymer-modified, self-leveling and self-finishing underlayment. PRO FLOWLEVEL 40 is formulated with PROMA's exclusive **Stabilized Technology™**, which minimizes movement and shrinkage during curing for superior results. The product also greatly reduces the need for shotblasting and profiling saving valuable time and money.

### Features

- ◆ Pour from 3 mm (1/8") to 50 mm (2") thick in a single application
- ◆ Walking time: 3 to 4 hours after pour; light traffic: 24 hours after pour
- ◆ Creates a smooth, level and uniform surface
- ◆ Formulated with PROMA's exclusive **Stabilized Technology™**, which minimizes movement and shrinkage during curing for superior results
- ◆ Greatly reduces the need for shotblasting and profiling saving valuable time and money
- ◆ Install ceramic, porcelain or natural stones, resilient floor covering, carpet, laminate flooring, engineered wood and wood parquet after 48 hours (when poured at a thickness of 6 mm [1/4"] or less)\*
- ◆ Mix only with water
- ◆ For interior institutional, commercial and residential applications
- ◆ Compatible with most setting materials, adhesives and floor coverings including wood parquet and rubber, once dried and sealed
- ◆ Can be barrel mixed or pumped through most standard pumps
- ◆ Can be used for encapsulation over asbestos based tiles and some glue residues
- ◆ Can be used as a thermal mass over hydronic and electric radiant systems
- ◆ Excellent compressive strength and flexural resistance
- ◆ Low Shrinkage
- ◆ Will not promote mold, mildew or bacteria growth
- ◆ No VOC
- ◆ Eco friendly for users of the material
- ◆ Contributes to LEED® objectives and requirements

\* Refer to Drying Time table in Curing and Protection section for further details.



Concrete



### Packaging

22.7 kg (50 lb) plastic bag

### Suitable Substrates

- ◆ Dry, completely cured concrete (at least 28 days old)
- ◆ Cement backer units (CBU)
- ◆ Sound Mats (see Limitations)
- ◆ Gypsum and light-weight concrete surfaces†
- ◆ Existing ceramic and quarry tiles, porcelain, granite and marble†
- ◆ Cementitious and Epoxy Terrazzo floors†
- ◆ OSB/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)†

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

\* Provided that the tensile bond strength of 72 psi (0.5 MPa) is reached as a minimum for self-leveling applications



## Limitations

- ♦ For INTERIOR installations only.
- ♦ Do not use at temperatures below 10°C (50°F) or above 35°C (95°F).
- ♦ Do not use for applications exceeding 50 mm (2") in thickness. For installations exceeding 50 mm (2") in thickness, contact our technical department for proper recommendations.
- ♦ Do not apply directly over particleboard, chipboard, presswood, Lauan, masonite and other dimensionally unstable materials.
- ♦ Do not apply below a thickness of 32 mm (1 1/4") over 5/8" plywood or OSB substrates. However, if the total assembly thickness is greater or equal to 32 mm (1 1/4"), the product can be applied at a minimum of 19 mm (3/4").
- ♦ Do not apply below a thickness of 38 mm (1 1/2") on sound mat. Please contact our technical department for proper recommendations.
- ♦ Allow the self-leveling underlayment to dry properly prior to installing the floor covering.
- ♦ Do not leave without floor covering or exposed as a resurfacing material.
- ♦ When using a self-leveling product 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.
- ♦ 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™ or PRO SUPERPRIME™ 1C prior to installing the self-leveling product (see respective technical data sheet).
- ♦ Do not use for filling cracks, holes and deep areas. Use PRO CEMIX™ for those purposes (see respective technical data sheets 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.
- ♦ Do not add water to the mix once it begins to thicken.
- ♦ Do not add sand, aggregate or additional water 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 self-leveling product to cure too rapidly, resulting in micro-cracking.
- ♦ **Do not accelerate curing time by using ventilators or heating appliances.**

## 4. TECHNICAL DATA

**NOTE:** The technical data provided is averaged based on lab testing under controlled conditions (23° C [73° F] and 50% RH), done in accordance with standard industry testing methods (where applicable), and is subject to change without notice. Actual performance may vary depending on jobsite conditions and installation methods used. Please contact our technical services department for additional information.

PHYSICAL PROPERTIES (@23° C [73° F] and 50% RH)	
Working time	≥ 30 minutes
Flowing time	> 20 minutes
Final setting time	90 minutes
Time before installing floor covering	Reference 'Curing and Protection'
Time before installing ceramic tile	Reference 'Curing and Protection'

## MECHANICAL PROPERTIES (@23° C [73° F] and 50% RH)

VOC content	0 g/L
Linear shrinkage (%) @ 28 days	< 0.02%
Flexural strength (ASTM C-348) @ 28 days	> 7.9 MPa (1,150 psi)
Tensile bond strength (ASTM D4541 [Concrete]) @ 7 days	> 2.6 MPa (400 psi)
Compressive strength (ASTM C-109) @ 28 days	> 27.5 MPa (4,000 psi)
Density	2 g/mL
7 days-dried density	
22.1 kg/m² x 1.27 cm thick (1/2"); 4.44 lbs/ft² x 1/2" thick	
Shelf life	
12 months if kept in its original unopened packaging and stored in a dry location.	

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

Thickness	Coverage
3 mm (1/8")	4.54 m² (48.9 ft²)
6 mm (1/4")	2.3 m² (24.5 ft²)
12 mm (1/2")	1.2 m² (12.3 ft²)
25 mm (1")	0.6 m² (6.2 ft²)

## 5. INSTALLATION

### Surface Preparation

(Refer to PROMA Surface Preparation Guidelines for complete details)

**Note:** Shot-blasting or profiling is not required for most concrete flooring when using PRO FLOWLEVEL 40. When in doubt, PRO SUPERPRIME™ or PRO SUPERPRIME™ 1C 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™ or PRO SUPERPRIME™ 1C (see respective technical data sheet for details).
- ♦ Smooth concrete substrate surfaces **must be primed** with PRO SUPERPRIME™ or PRO SUPERPRIME™ 1C primers to provide adequate bonding of the subsequent leveling product.
- ♦ If concrete is dry and porous, **it must be primed** with PRO SUPERPRIME™ or PRO SUPERPRIME™ 1C primers to prevent an uncontrolled absorption of water out of the self-leveling mix and also to avoid formation of air bubbles on the surface (see respective technical data sheet for details).





- Existing concrete slabs with old cutback adhesive or carpet adhesive residues must be scraped, cleaned and **PRIMED** prior to the application of the self-leveling underlayment (Refer to the PRO SUPERPRIME™ or PRO SUPERPRIME™ 1C technical data sheets for full details or contact our Technical Service Department for appropriate recommendations).
- Wood substrate must be **PRIMED** with PRO SUPERPRIME™ or PRO SUPERPRIME™ 1C primers. 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 6 mm (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.
- Existing ceramic tile, VCT or hard to bond to surfaces **must be properly primed** with PROMA's PRO SUPERPRIME™ or PRO SUPERPRIME™ 1C primers prior to the application of the self-leveling underlayment (Refer to the PRO SUPERPRIME™ or PRO SUPERPRIME™ 1C technical data sheets 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: 3 parts powder to 1 part water (by volume)**

- Use clean mixing-tools and containers.
- In a clean mixing container, measure and pour approx. **6 L (6.34 quarts / 1.59 US gal)** of cool clean water and gradually add 22.7 kg (50 lb) of PRO FLOWLEVEL 40 powder mix, while mixing slowly.
- Using a low-speed mechanical mixer (150 - 300 rpm), mix until a homogeneous, smooth, lump-free, consistency is achieved.
- The product is now ready for setting.
- 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.**

- Pour the self-leveling mix on the substrate and help spread it in place with a trowel or squeegee or by continuous pumping.
- The mix will level itself out while leaving a smooth finish.

**For more detailed information on ways to apply this product (especially when a pump process is being used), please contact our technical department for proper recommendations and job field assistance.**

**Note: All expansion and control joints must be carried through from substrate to final flooring and filled with an industry-approved flexible sealant. Do not fill or cover expansion and control joints with installation material. Contact PROMA's technical department for additional information.**

## Curing and Protection

- Protect from foot traffic for at least 3-4 hours and from light traffic for a period of 24 hours at normal room temperature and humidity conditions.
- Install ceramic tiles, porcelain, or natural stones, and floor covering materials, such as resilient flooring, carpet, laminate, engineered wood and wood parquet, only after PRO FLOWLEVEL™ 40 has **completely dried**. PRO FLOWLEVEL 40 dries at 1/8" (3 mm) per day on average. The below chart is provided as a general guideline for drying times:

Thickness	Drying Time
1/8" (3 mm)	24 hours
1/4" (6 mm)	48 hours
1/2" (12 mm)	96 hours
Over 1/2" (12 mm)	7-14 days*

\* Please contact our Technical Service department for further information.

**NOTE:** Porosity of the substrate, depth of application, ambient temperature, climate conditions, and ventilation can all affect drying time. **Always test the installed product to ensure it is fully dry using mat testing according to ASTM D4263, or with a moisture tester (e.g. Delmhorst Model BD-2100) when the calibrated meter reads 5% or less.**

- Do not attempt to accelerate drying and curing through forced ventilation, fans, blowers, or auxiliary heaters.**
- IMPORTANT:** Once dried, PRO FLOWLEVEL™ 40 must be **SEALED** before any glue or mortar application. Seal surface using PRO SUPERPRIME™ or PRO PRIME™ LP primer at a ratio of 1 part latex to 3 parts water (1:3).
- Protect from dirt, dust, and damage from other trades until fully covered by a floor covering or tiling material.

## PRO SUPERPRIME™

PROMA has engineered a revolutionary primer that can ready nearly any surface for PROMA leveling underlayments without the need for scarifying or shotblasting. Use PRO SUPERPRIME™ or PRO SUPERPRIME™ 1C with PRO FLOWLEVEL 40 as 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).





## 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](http://www.proma.ca).

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