

# LEVEL SET TROWEL GRADE

## Description

ProSpec<sup>®</sup> Level Set Trowel Grade is a special cement based trowel applied patching compound that when mixed with water is used to repair subflooring prior to the installation of floor coverings.

## Features

- Rapid setting
- Can install floor coverings in 90 minutes
- For repairing floors from featheredge to 3" (24 mm) thickness
- Excellent bond
- Cement based, therefore all adhesives compatible with concrete are acceptable
- High coverage area
- Non-gypsum formula
- Typically requires no priming

## Uses

- Interior use
- Repairing and smoothing ramps, pre-cast and stairways
- Patching, leveling and smooth absorbent uneven, rough concrete
- Filling cracks, holes, voids etc. prior to the application of floor coverings

## Technical Data

Working Time @ 70° F (21° C)		Compressive Strength ASTM C 109 (Air Cured)	
20-25 minutes		1 hour	1000 psi (6.9 MPa)
Set Time ASTM C 191 @ 70° F (21° C)		1 day	3000 psi (20.7 MPa)
Initial set	Approx. 30 min.	7 days	4500 psi (31.0 MPa)
Final set	Approx. 40 min.	28 days	5500 psi (37.9 MPa)

Test results obtained under controlled laboratory conditions.  
Reasonable variations can occur due to atmospheric and job site conditions.

## Preparation

(See Substrate Preparation Bulletin)

### For concrete substrates:

1. Clean area and remove all unsound concrete, grease, oil, paint and any other foreign materials that will inhibit performance.
2. Substrates must be stable, solid and structurally sound
3. ProSpec Level Set Primer must be applied over entire substrate. Do not apply over standing water.

4. Allow ProSpec Level Set Primer to dry completely to a tacky translucent film with no milky wet spots before installation of the underlayment. Do not bridge over existing expansion or control joints.

### Non-Porous Subfloors, Cutback, Wood and Metal:

1. All above surfaces require the exclusive use of ProSpec Level Set Primer Plus.

## Refer to

- ASTM D 4259 [Abrading Concrete](#)
- ICRI Guideline No. 03732 [Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays](#)
- ACI 201.1R [Guide for Making a Condition Survey of Concrete in Service](#)

# LEVEL SET TROWEL GRADE

## Preparation (cont'd)

2. Mix Primer Plus thoroughly and apply a THIN layer using a sponge paint roller.
3. Eliminate all bare spots, leaving no excess primer or built up areas. Allow primer to dry to thin film. Depending upon temperature and humidity this may take between 3-24 hours.

CAREFUL! A thick heavy coat of Primer Plus will result in a soft elastic surface yielding cracks in the underlayment. Reference ProSpec Level Set Primer Plus Technical Data Sheet and Substrate Preparation bulletin.

NOTE: Low subfloor temperatures, or high humidity will slow primer drying. Never place Level Set Trowel Grade until the primer is COMPLETELY dry.

### Over wood, cutback and non-porous subfloors

1. The addition of ProSpec Acrylic Additive emulsion is required to increase the resiliency of Level Set Trowel Grade.
2. Mix 2 qts. (1.9 L) of ProSpec Acrylic Additive with 4 qts. (3.8 L) of water for each bag of Level Set Trowel Grade used and install as outlined below.

NOTE: It is the responsibility of the installer/applicator to ensure that test areas are performed to determine the suitability of the product for its intended use.

## Refer to

- ASTM D 4259 [Abrading Concrete](#)
- ICRI Guideline No. 03732 [Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays](#)
- ACI 201.1R [Guide for Making a Condition Survey of Concrete in Service](#)

## Mixing

1. Mix that amount of ProSpec Level Set Trowel Grade that can be placed within 10-15 minutes at 70° F (21° C). Higher temperatures will shorten working time and cooler temperatures will prolong it.
2. Place 5.5 qts. (5.2 L) of clean potable water into a mixing container and then add 50 lbs. (22.7 kg) of Level Set Trowel Grade, mixing to a lump free, creamy consistency.
3. A mechanical mixer such as a paddle and 1/2" heavy duty drill will result in a better consistency and save time.
4. Do not re-temper or over mix entraining excess air. Smaller quantities should be mixed by hand.

# LEVEL SET TROWEL GRADE

## Placement

1. All applications require the use of ProSpec Level Set Primers prior to the placement of Level Set Trowel Grade.
2. Floor preparation is crucial in obtaining a successful installation. The contractor is responsible for ensuring the substrate is properly prepared prior to application of ProSpec Level Set Trowel Grade. A test application is recommended.

### Concrete:

1. Use a straight edge steel trowel when applying Level Set Trowel Grade to a properly prepared surface, forcing the material into voids.
2. Level Set Trowel Grade can be installed from feather edge to 1" (25 mm) without adding aggregate. After 15-30 minutes, depending upon substrate and ambient temperatures, the surface can

be troweled to the desired smoothness.

3. Floor coverings usually can be installed after 90 minutes at 70° F (21° C). Always follow the recommendations of the floor covering manufacturer concerning maximum allowable subfloor moisture content.

### Extended Mix:

1. Level Set Trowel Grade, extended with 3/8" (10 mm) washed clean, dry pea gravel can be installed up to a depth of 3" (76 mm) in one application in sections of 4 ft<sup>2</sup> (0.4 m<sup>2</sup>).
2. Remember this is a rapid setting material so do not mix more than can be placed within 15 minutes.
3. First mix the Level Set Trowel Grade as previously outlined then add 15 lbs. (6.8 kg) of pea gravel mixing until the

aggregate is coated.

4. Total mixing time should be 2-3 minutes, with wet pea gravel perhaps requiring the use of less water.

### Coverings:

1. When Level Set Trowel Grade is walkable and demonstrates no resulting surface damage it can be covered. At a temperature of 70° F (21° C) with a relative humidity of 50% most floor coverings, including self leveling underlayments such as ProSpec Level Set 200 or Wear Topping, can be installed in 90 minutes. Follow the recommendations of the covering supplier.

## Clean Up

Use water to clean all tools immediately after use.

## Best Performance

- For interior use only, over dry substrates.
- Do not apply over lightweight or gypsum base concrete.
- Do not apply to frozen or frost covered areas. The minimum ambient and surface temperatures should be 50° F (10° C) at time of application. Hot weather and conditions above 80° F (27° C) will reduce working time and accelerate set, while cold temperatures below 60° F (16° C) will have a retarding effect.
- Level Set Trowel Grade requires the use of a primer on the substrate, prior to application.

Consult Level Set Primer or Level Set Primer Plus Technical Data Sheets.

- Is not a vapor barrier, will allow moisture transmission
- Before covering consult covering manufacturer's requirements regarding maximum allowable moisture in subfloor
- Do not cover or fill control or expansion joints.
- Do not overwork, re-temper, over-water or add admixtures.
- Always install a test area, insuring suitability of Level Set Trowel Grade for intended use.

# LEVEL SET TROWEL GRADE

## Curing

Level Set Trowel Grade is self curing however protection from wind, low humidity and direct sun is necessary to prevent rapid drying.

## Coverage

A 50 lb. (22.7 kg) bag covers approximately 50 ft<sup>2</sup> (4.6 m<sup>2</sup>) at 1/8" (3 mm) thickness and 25 ft<sup>2</sup> (2.3 m<sup>2</sup>) at 1/4" (6 mm).

## Packaging

50 lbs. (22.7 kg) moisture resistant bag / 50 bags per pallet

## Storage

Always keep in cool dry place, unexposed to sunlight.

## Shelf Life

One year when stored properly in original unopened container.

## Caution

**KEEP OUT OF REACH OF CHILDREN AND ANIMALS. WARNING!**

Contains Portland cement and silica sand. May irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin. In

case of contact, flush thoroughly with water. The wearing of gloves and safety goggles is recommended.

In case of eye contact, flood eyes with potable water and call physician. **DO NOT RUB EYES.**

Do not take internally. Crystalline silica sand may cause serious lung problems. Avoid breathing dust and wear a respirator in dusty areas.

Consult Material Safety Data Sheet for further information.

## First Aid

**Inhalation:** Remove to fresh air  
**Eye Contact:** Irrigate eye with water or consult physician if irritation persists.

**Skin Contact:** Washed exposed skin area with soap and water; consult a physician if irritation persists.

**Ingestion:** Immediately consult a physician.

LIMITED 1 YEAR WARRANTY FROM DATE OF MANUFACTURE: Bonsal American warrants that this product and the materials used therein meet or exceed the applicable standards listed and enforced at the time of manufacture. Bonsal American will replace any product or part which proves defective due to quality of ingredients used or due to the manufacturing process itself. This Warranty shall apply only if the product is used in strict accordance with applicable specifications and instructions provided by Bonsal American for its use, and Bonsal American shall not be liable otherwise. Replacement of any defective product, or, at Bonsal American's option, refund of the purchase of any defective product shall be the buyer's sole remedy under this Warranty, and Bonsal American shall in no event be liable for any damages in excess of the purchase price of the defective product. **BONSAL AMERICAN SHALL IN NO EVENT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES INCLUDING LOSS OF PROFITS OF ANY KIND.** Product demonstrations are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. This Warranty constitutes the sole warranty given by Bonsal American in connection with this product. No modification of this Warranty in favor of any buyer shall be valid unless given in writing and signed by an officer of Bonsal American. Bonsal American has authorized no person to make or give any other warranties or representation, oral or written on its behalf. **IN PARTICULAR, THERE ARE NO IMPLIED WARRANTIES, INCLUDING WITHOUT EXCEPTION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

ProSpec<sup>®</sup> is the registered trademark of Sakrete of North America.  
8201 Arrowridge Blvd. Charlotte, NC 28273 • www.prospec.com • E-Mail: prospec@oldcastleapg.com