

# B-1 Leveler

**BONSAL® B-1 Leveler** is a trowel grade, polymer modified cement based floor underlayment.

## FEATURES AND BENEFITS:

- Easy to Mix
- Easy to Trowel
- Fast Setting
- Self-Bonding
- Excellent Surface Hardness
- High Tensile and Compressive Strength
- Featheredges

## USES:

### Interior Use For

- Leveling and Smoothing Floors
- Fill Cracks and Voids
- Repair Score Lines

### For Use Under

- Asphalt Tile
- Ceramic Tile
- Quarry Tile
- Mosaic Tile
- Linoleum
- Vinyl Tile
- Carpet
- Wood Flooring

### For Use OVER

- Concrete
- Wood
- Cement Plaster
- Composition Board
- Cementitious Backer Board
- Underlayment Grade Plywood
- Embossed Vinyl Tile

## PREPARATION:

Evaluation of the substrate by a qualified engineer, architect or contractor using means that determine the cause of deterioration is strongly recommended. Particular attention is to be given but not limited to chloride penetration, corrosion of steel, galvanic activity, materials selection and compatibility, waterproofing, constructibility, quality assurance and methods of application and maintenance by the owner. Clean area and remove all unsound material, concrete, grease, oil, paint, and any other foreign materials that will inhibit performance. Slick or sealed surfaces must be thoroughly roughened. Dampen surface uniformly before applying the Bonsel B-1 Leveler.

## PREPARATION (Cont.):

Refer to:

- ASTM D 4258 Surface Cleaning Concrete for Coating
- ASTM D 4259 Abrading Concrete
- ASTM D 4261 Surface Cleaning Concrete Unit Masonry for Coating
- ASTM D 4580 Measuring Delaminations in Concrete Bridge Decks by Sounding
- ICRI Guideline 03730 Surface Preparation Guidelines for Repair of Deteriorated Concrete Resulting from Reinforcing Steel Oxidation
- ICRI Guideline 03733 Guide for Selection and Specifying materials for Repair of Concrete Surface
- ICRI Guideline No. 03732 Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays
- ACI 201.1R Guide for Making a Conditions Survey of Concrete in Service
- ACI 201.3R Guide for Making a Condition Survey of Concrete Pavements

Concrete floors on or below grade must have a vapor barrier under the slab. Coring may be required to determine if adequate moisture barriers are present. Bonsel B-1 Leveler should not be used if moisture is present.

### Over Concrete

New concrete slabs must be properly cured and thoroughly dried before installation may be attempted. Depending on atmospheric conditions and water content, slabs may require up to six weeks drying time.

### On or Below Grade Floors

Only when acceptable moisture levels and effective restrictions on moisture transmission are in place may floor coverings be installed.

### Suspended Floors

The floor must be structurally sound. Remove materials that prevent bond. Where the sub-floor boards are more than 4" (10.16 cm) wide, cover with sheet underlayment per project requirements or in accord with Tile Council of America recommendations for Installation of Interior Wood Subflooring and applicable sections of ANSI AN-3 Floors of Plywood. Allowable deflection is 1/360 maximum.

## PREPARATION (Cont.):

### Vinyl Flooring Coverings

Remove waxes and other floor treatment materials.  
Prime with Bonsal 118 Primer/Admixture. (See 118 Primer/Admixture literature)

## MIXING:

Use 3 1/2 to 4 quarts (3.3 l to 3.78 l) of water per 25 lb. (11.35 kg) bag. For small repairs, mix the dry compound with water to a soft putty-like consistency. Dampen the area to be repaired and fill with trowel or putty knife. For skim coating, use 1 quart of Bonsal 118 Primer/Admixture and 3 1/2 quarts (3.3 l) of water per 25 lb. (11.35 kg) bag. Additional drying time will be needed when an additive is used.

## PLACEMENT:

Using a trowel, spread the mixture over the surface to the desired thickness up to 2 inches (5.08 cm). For repairs greater than 2 inches (5.08 cm) thick, use Bonsal 118 Primer/Admixture between applications.

When vinyl, wood, or other types of floor coverings are to be installed over B-1 Leveler, the requirements of the floor covering manufacturer are to be followed with respect to but not limited to levels of moisture. Refer to:

- RFCI (Resilient Floor Covering Institute publication MRP - Nov 95): [Addressing Moisture Related Problems Relevant to Resilient Floor Coverings Installed Over Concrete](#)
- NOFMA(National Oak Flooring Institute) publication: [Installing Hardwood Flooring](#), Rev. March 98/10

### Placement Temperature

	Minimum	Maximum
Substrate	50°F (10°C)	80°F (26.6°C)
Mix	60°F (15.5° C)	70°F (21.1°C)
Air	50°F (10°C)	80°F (26.6°C)

## CURING:

Air cure Bonsal B-1 Leveler 2 hours if cement based floor covering adhesives are to be used. Air cure 4 to 8 hours if solvent based floor covering adhesives or mastics are to be used.

Actual moisture content testing is recommended prior to final floor covering installation. Consult the floor covering manufacturer for substrate requirements.

## TECHNICAL DATA:

### Hardness

ASTM D 2240

4 hours

50 Shore D

B-1 Leveler	Water	3:1 Water/ 118 Primer/ Admixture
ASTM C 266		
Initial Set	0:25	0:26
Final Set	0:32	0:28
Compressive Strength PSI		
ASTM C 109		
4 hours	1450 (10 Mpa)	1200 (8.27 Mpa)
24 hours	2250 (15.5 Mpa)	2000 (13.8 Mpa)
7 days	2800 (19.3 Mpa)	2625 (18.1 Mpa)
28 days	4000 (27.6 Mpa)	3475 (23.9 Mpa)
Flexural Strength PSI		
ASTM C 580		
7 days	860 (5.9 Mpa)	1230 (8.48 Mpa)
28 days	860 (5.9 Mpa)	1320 (9.1 Mpa)
Tensile Strength PSI		
ASTM C 307		
4 hours	130 (0.89 Mpa)	-
7 days	280 (1.93 Mpa)	370 (2.55 Mpa)
28 days	370 (2.55 Mpa)	400 (2.75 Mpa)
Shear Bond Strength PSI		
ASTM C 882		
28 days	860 (5.9 Mpa)	860 (5.92 Mpa)

## LIMITATIONS:

- DONOT** mix more than can be placed in 10 minutes.
- DO NOT** apply where water resistance is required.
- DO NOT** retemper after 5 minutes.
- DO NOT** apply if radiant heated floor surface temperature will exceed 90°F (32.2°C).
- DO NOT** apply in areas subject to moisture.
- DO NOT** apply if air or substrate temperature is below 50°F (10°C) or above 80°F (26.6°C).
- DO NOT** over water.
- DO NOT** use in exterior applications.
- DO NOT** coat with materials that will trap water in the substrate.

**COLORS:**

Grey

**COVERAGE:**

25 sq. ft. (2.3 m<sup>2</sup>) at 1/8" (3.17 mm) thickness per  
25 lb. (11.3 kg) bag

**PACKAGING:**

25lb. (11.3 kg) multiply bag

**SHELF LIFE:**

One year from date of manufacture.

**CAUTION:** Contains Silicon Dioxide, Portland Cement, and Calcium Hydroxide. Your skin may be sensitive to cement. Wearing rubber gloves is recommended. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water. For eyes, flush with clean water for at least 15 minutes and get prompt medical attention.

**KEEP OUT OF REACH OF CHILDREN**

**LIMITED WARRANTY:** W.R. Bonsal Company ("Bonsal") warrants that this product and the materials used therein meet or exceed the applicable standards listed and enforced at the time of manufacture. Bonsal 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 to applicable specifications and instructions provided by Bonsal for its use, and Bonsal shall not be liable otherwise. Replacement of any defective product, or, at Bonsal's option, refund of the purchase of any defective product shall be the buyer's sole remedy under this Warranty, and Bonsal shall in no event be liable for any damages in excess of the purchase price of the defective product. **BONSAL SHALL IN NO EVENT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES.**

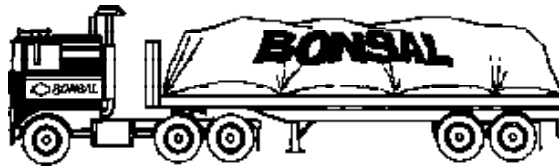
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