

level plus

Unique 2-Part or 1-Part Levelling & Smoothing Compound

DESCRIPTION

Super-smooth, rapid-setting leveller that uniquely can be mixed with latex additive **BAL LEVEL PLUS LIQUID** as a 2-Part high performance, protein-free, moisture tolerant cementitious leveller for floors – OR – mixed with water as a 1-Part leveller for standard installations.

Use for

- Laying on absorbent internal substrates; to prepare standard floor surfaces prior to installing:
 - Ceramic & porcelain tiles.
 - Glass/ceramic/stone mosaic tiles.
 - Natural stone.
 - Sheets and soft furnishing (inc. vinyl, linoleum, carpet). ^
 - Wooden flooring (inc. parquet flooring, laminates)
 - Resilient flooring ^
 - Certain floor paints
- Internal applications
- Dry environments only, unless using BAL WATERPROOF 1C or BAL TANK-IT.
- Domestic or commercial* use.

NOTE: BAL LEVEL PLUS is not suitable as a wearing surface.

USAGE: Bed Thickness / Time at 20°C

Mix	Bed Thickness	Pot Life	Setting Time
1 Part (water)	2mm – 12mm (10 to 30mm with aggregate)	25 mins	2 - 3 hours
2 Part (liquid)	2mm – 10mm (10 to 30mm with aggregate)	25 mins	2 - 3 hours

^ Can receive ceramic or natural stone tiles after 3 hours at 20°C. A longer drying period will be required at thicker depths and/or lower site temperatures. Allow a minimum of 24 hours for soft floor coverings e.g. carpet, vinyl etc.

TEMPERATURE

RESISTANCE***

-30°C to 100°C

*** Cured compound.

BAL LEVEL PLUS Restrictions: NOT suitable for

Exterior use, total immersion areas (e.g. swimming pools) or use as a wearing surface.

PRODUCT INFORMATION

Composition: Rapid-setting polymer-modified cement-based powder and can be used with BAL LEVEL PLUS LIQUID (Latex) to enhance performance.

Colour: Grey.

Type/Classification (with BAL LEVEL PLUS LIQUID):

Exceeds BS EN 13813 **CT – C20 – F7** – Cementitious screed, Compressive Strength is >20N/mm² and Flexural Strength is >7N/mm² after 28 days

Type/Classification (with water):

Exceeds BS EN 13813 **CT – C20 – F6** – Cementitious screed, Compressive Strength is >20N/mm² and Flexural Strength is >6N/mm² after 28 days

Pack Size: 20kg.

(BAL LEVEL PLUS LIQUID 4.5L sold separately if required)
Set Times: 2hrs for foot traffic, 3hrs for tiling (at 20°C).

BAL LEVEL PLUS – WITH WATER (1-part)

Key Features:

- Super smooth and just add water.
- Interior dry floors prior to laying decorative finishes.
- Used on concrete, cement:sand screeds, terrazzo, quarry tiles and old tile adhesive residues.
- Pumpable for large areas.

BAL LEVEL PLUS & BAL LEVEL PLUS LIQUID (2-part)

Key Features (including):

- Suitable for heavily trafficked floors and underfloor heating systems.
- Can be applied over bitumen, heated screeds or direct over glazed tiles.
- Can be used under a Damp proof membrane (DPM).

SURFACE PREPARATION

General

Ensure surfaces are dry, sound, and free from grease, dust and any other contamination/barriers to adhesion.

All primed areas should be fully dry.

Ensure direct-to-earth sub-floors incorporate an effective damp proof membrane.

Surface regularity:

Surface Regularity is defined as the deviation in height of the surface over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the surface. BAL LEVEL PLUS may be used to correct floors to SR1 (+ or – 3mm or less over a 2 metre straight edge).

Class	MAXIMUM PERMISSABLE DEVIATION - 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive

N.B. When using larger format tiles, it is essential that the substrate is as level as possible, ideally better than SR1, as this will avoid excessive bedding out of adhesive.

In wet areas: waterproof background with BAL WATERPROOF 1C or BAL TANK-IT.

BACKGROUNDS / BASES

1-Part Mix with water

Ceramic tile adhesive residues (4)	✓	Unglazed Ceramic Tiles / Hard Natural Stone	✓
Cement:Sand Screeds with low/highly absorbent surface (4)	✓	Concrete with low/highly absorbent surface (2)(6)	✓
Anhydrite/Calcium Sulfate Screeds (3)(4)	✓		

2-Part Mix with BAL LEVEL PLUS LIQUID

Tile Backer/Fibre Cement Boards (3)(4)	✓	Mastic Asphalt (5)	✓
Cement:Sand Screeds with Underfloor Heating (4)	✓	Glazed Tiles / Polished Stone	✓
Anhydrite/Calcium Sulfate Screeds with Underfloor Heating (3)(4)	✓	Timber Floors Overlaid With Tile Backer Board (4)	✓
Timber Floors (soft floor finishes)	✓	Vinyl Tiles/Sheets	✓
Bitumen residues	✓		

Walls	✗	Floor	✓
Interior	✓	External	✗
Dry	✓	Wet Areas (1)	✗
Domestic	✓	Commercial (with BAL LEVEL PLUS LIQUID)	✓

(1) In wet conditions tank out with BAL WATERPROOF 1C or BAL TANK-IT.

(2) Where the surface is high absorbency, prime with suitable BAL primer.

(3) Check suitability for the intended purpose with the manufacturer.

(4) Prime with suitable BAL primer.

(5) Check suitability of the grade of asphalt (flooring grade only).

(6) Where the surface has low absorbency, dampen with clean water.

TOOLS/COVERAGE

Recommended Application Tool	Mix type	Typical Coverage ^{^^} at 3mm bed-thickness
Steel trowel Long hand blade	With water	0.19m ² /kg
Steel trowel Long hand blade	With BAL LEVEL PLUS LIQUID	0.2m ² /kg

^{^^} May vary dependent on nature and flatness of surface, and thickness of application.

SUITABLE SURFACES include:

Asphalt (suitable grade e.g. internal flooring)

When used with BAL LEVEL PLUS LIQUID

Must be of a suitable grade, be clean, in sound condition (without brittleness, softening. etc.) and have adequate cohesive strength, a natural float finish and laid on a firm rigid base.

Clean thoroughly to remove surface dirt using warm water and a suitable detergent. Remove all detergent residues with clean water. No priming is needed.

Ensure that surface is sufficiently regular to suit bedding depths of BAL LEVEL PLUS.

Apply leveller as required, minimum 3mm to maximum 6mm.

Unglazed ceramic tiles, quarry tiles, terrazzo and natural stone

Ensure that the existing finish is firmly adhered to the base. If areas are loose or hollow sounding, remove and make good any hollow/defective areas. NOTE: Existing glazed tiles, use BAL LEVEL PLUS LIQUID.

Concrete; cement:sand screeds

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove using suitable mechanical methods. (see appropriate BAL TECHNICAL DATA SHEET for priming information). Prime with BAL PRIME APD diluted 1:1 with water.

Allow the following minimum drying times:

- Concrete: 6 weeks
- Cement:sand screed: 3 weeks

BAL QUICKSET CEMENT:sand screeds

- Bonded screeds: 4 hours
- Unbonded/floating screeds: 48 hours

Existing thermoplastic vinyl tiles

When used with BAL LEVEL PLUS LIQUID

Ensure these are in good sound condition and securely bonded to their base.

Remove loose or damaged tiles/areas of sheet along with any loose or soft adhesive.

Remove any polishes, wax, grease etc. with a suitable proprietary cleaner.

Maximum 3mm thickness.

NOTE: Cushioned types of flooring and LVT are not suitable and must be completely removed along with the adhesive residue prior to tiling.

Timber floors overlaid with Tile Backer Board

When used with BAL LEVEL PLUS LIQUID

Ensure timber floor (i) is sufficiently rigid and stable to receive tiles; (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) has adequate ventilation under the timber.

Overlay existing timber floor with a suitable tile backer board e.g. BAL BOARD 12mm screwed at 300mm centres following board manufacturer recommendations.

Prime porous boards with a suitable BAL primer. Allow to dry.

NOTE: Timber is not a suitable base for floor tiling in wet, frequently damp, or high humidity areas, unless appropriate precautions are taken (see BS 5385-4).

Anhydrite/calcium sulfate and hemi-hydrate screed Heated screeds when used with BAL LEVEL PLUS LIQUID

Allow the screed to dry out in accordance with manufacturer's instruction example: moisture contact below 0.5% w/w or 75% RH (Relative Humidity). Mechanically remove top surface to remove weak/dusty surface layer(s) as per the screed manufacturer's recommendations. Remove all dust and loose material e.g. by vacuum etc. before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD diluted 1:1 with clean water by volume and second coat undiluted.

Or

- BAL ALL IN ONE PLUS diluted 1:4 with clean water by volume followed by a second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY SERVICE. Maximum thickness 6mm.

Bitumen residues

When used with BAL LEVEL PLUS LIQUID

Must be clean. Remove loose friable material and ensure all remaining adhesive residues are soundly bonded.

Clean thoroughly to remove surface dirt using warm water and a suitable detergent. Remove all detergent residues with clean water. No priming is needed.

Ensure that surface is sufficiently regular to suit bedding depths of BAL LEVEL PLUS.

Apply leveller as required, minimum 3mm to maximum 6mm.

Bitumen based paints, coatings and damp proof membranes are not suitable.

Uneven timber floors (soft floor finishes only)

When used with BAL LEVEL PLUS LIQUID

Ensure sheets or boards are (i) dry, securely fixed and rigid; (ii) have adequate ventilation beneath the suspended timber floors at ground level. Lay BAL LEVEL PLUS 2-part and allow to dry for 3 hours.

Screw down layer of 6-12mm plywood compliant with BS 6566 onto this levelled base.

Fibre reinforced cement boards and lightweight tile backer boards

When used with BAL LEVEL PLUS LIQUID

Install boards to BS 5385 – i.e. moisture-resistant boards and screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations. Ensure no fixings protrude. Some boards may require priming, prior to smoothing. Use a suitable primer from the BAL range. *Please refer to the BAL TECHNICAL DATA SHEETS for further information.*
IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for the tiling application and for relevant fixing instructions.

Under liquid DPM/Moisture Control System

Ensure substrate is free from weak/friable material, dust, contamination or other barriers to adhesion. Can be applied to damp subfloors providing they are free from standing water. Mechanically prepare surface where required. Surface may then require dampening. BAL LEVEL PLUS can be applied up to a maximum of 6mm under a suitable liquid DPM. Once BAL LEVEL PLUS has dried, apply liquid DPM following manufacturers recommendations. Can be applied directly to ARDEX DPM 1 C within 48 hours. For other DPM coatings, refer to the manufacturer regarding priming requirements.

Heated Screeds

When used with BAL LEVEL PLUS LIQUID

Suitable for sand/cement screeds with water fed underfloor heating encased within. Use in conjunction with one of the BAL uncoupling mattings, depending upon the size and type of tiles. Prime porous substrates with a suitable BAL primer.
NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY SERVICE.

Undertile electrical heating systems

When used with BAL LEVEL PLUS LIQUID

Can be used onto electrical undertile heating systems over suitable tile backer boards encased within an appropriate BAL leveller. Consideration may be given to the use of BAL uncoupling mattings, depending upon the size and type of tiles.

BAL LEVELLER	THICKNESS	SETTING TIME
BAL LEVEL PLUS	2mm to 30mm**	2 – 3 hours

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

** 10 - 30mm when used with a suitable 3mm aggregate such as BAL AGGREGATE.

MIXING

BAL LEVEL PLUS - WITH WATER

Use a BAL MIXING BUCKET or other suitable bucket.

1. Add approximately 5.3 parts powder to 1 part clean cold water by weight. (see table) Never add more water than recommended as this may lead to excess shrinkage or de-bonding.
2. If using BAL Aggregate – mix 20kg of aggregate per 1 bag of BAL LEVEL PLUS.
2. Mix until lump-free mortar achieved.
3. Allow mixed compound to stand for 2 minutes before re-mixing for 30 seconds.

Product Size	Usage	Approx. clean cold water required per size
20kg	Floors	3.8 litres

BAL LEVEL PLUS - WITH BAL LEVEL PLUS LIQUID

Use a BAL MIXING BUCKET or other suitable bucket.

1. Pour all BAL LEVEL PLUS LIQUID (4.5 litres) into clean container.
- 2a. Gradually add all BAL LEVEL PLUS powder (20kg) to BAL LEVEL PLUS LIQUID (4.5L) and mix until smooth lump-free mortar achieved.
- 2b. If using BAL Aggregate – mix 20kg of aggregate per 1 bag of BAL LEVEL PLUS powder (20kg) to BAL LEVEL PLUS LIQUID (4.5L).
3. Allow mixed compound to stand for 2 minutes before re-mixing for 30 seconds.

NOTE: If using electric drill mixer, blend at slow speed (i.e. under 300rpm).

Ready for immediate use. Pot life at 20°C: approx. 25 minutes.

NOTE: Pot life/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.

APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

Trowel recommendations

Area	Recommended Application Tool
Small /medium to large size floors.	Steel trowel
Very large areas (Pumpable)	Long hand blade

Usage procedure

1. Prime the floor surface if required and allow to dry before mixing BAL LEVEL PLUS with water or BAL LEVEL PLUS LIQUID.
2. Pour mix over sub-floor and spread to required depth using a suitable steel finishing trowel or long hand blade.
3. Surface should be sufficiently smooth to receive floor coverings without further treatment. Note: A spiked roller can be used if required. If any trowel marks remain: rub down before compound has hardened (after 2 hours).
4. Allow new floor surface to set. Depending on thickness of application, a 3mm layer BAL LEVEL PLUS can receive foot traffic after 2 hours and receive tiling after 3 hours.
5. Show existing movement joints within the sub-floor and BAL LEVEL PLUS.
6. Allow BAL LEVEL PLUS to set for a minimum of 24 hours when receiving soft floor finishes (inc. vinyl, linoleum, carpet, resilient and certain floor paints).

HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY SERVICE. Tel: 01782 591120 or 03330 030160 .

SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp.

QUALITY AND ENVIRONMENTAL STANDARDS

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

25 YEAR GUARANTEE

All BAL products are supplied with a 25-year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control.

Contact BAL Marketing Department for full details.

ARDEX GROUP WARRANTY

ARDEX Group supplies products under a range of Brands into the UK and Ireland markets. This Warranty applies to BAL, ARDEX, Gutjahr, Wakol, Loba, wedi or Knopp products whether used individually or in combination provided they are used in accordance with the relevant product datasheets and the warranty terms and conditions are available on the website. This Warranty applies only to Products purchased and used in the UK and Ireland directly from one of the Brands or a Brand authorised stockist.

CONDITIONS OF SALE

Sold subject to the Company's Conditions of Sale. *Available on request.*

For sales and technical queries, contact:

BUILDING ADHESIVES LTD

Longton Road, Trentham, Stoke-on-Trent, ST4 8JB, England
www.bal-adhesives.com

Sales

Tel: +44 (0) 1782 591160

Technical

Tel: +44 (0) 1782 591120 or
+44 (0) 3330 030160

Ireland

Unit 622, Phase III, Northwest Business Park, Ballycoolin,
Dublin 15, Ireland
Tel: +353 (0) 1 880 9210

NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.
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