



TECHNICAL DATA SHEET



Ver 03 - PALGL 04.08.21

GYP-LEVEL

GYPSUM BASED FLOOR LEVELLING COMPOUND

- HAS A WORKING FLOW TIME OF 30 MINS AT 20°C
- CAN BE LAID DIRECTLY TO EXISTING ANHYDRITE SUB-FLOORS
- CAN BE LAID FROM 3-20MM BED DEPTH IN A SINGLE POUR
- SUITABLE FOR APPLICATIONS WHERE SUB-FLOOR HEATING IS TO BE INSTALLED
- CAN RECEIVE TILES DIRECTLY WHEN APPLIED USING GYP-BOND ADHESIVE

TECHNICAL SUMMARY

UNIT SIZES	20kg
COLOURS	Cream
FOOT TRAFFIC	180 minutes
READY FOR TILING	4 Hours for a 3mm layer
WORKING TIME @ 20°C	20 - 30 min
INITIAL SET TIME	60 minutes
APPLICATION TEMPERATURES	>5°C and <35°C

* More information can be found within data sheet



PALACE GYP-LEVEL

Is a super-smooth rapid-curing floor levelling compound, incorporating calcium sulphate binders alongside a high level of polymer-modification making it the ideal, internal sub-floor smoothing underlayment. Demonstrates excellent bond strength to existing anhydrite substrates & suitable for use where underfloor heating systems are in place or to be installed.

3-20MM BED DEPTH

COMPATIBLE WITH PALACE GYP-BOND ADHESIVE



PALACE CHEMICALS LTD
 SPEKE HALL INDUSTRIAL ESTATE
 SPEKE LIVERPOOL L24 1YA
 TEL: 0151 486 6101 - FAX: 0151 448 1982
 E-MAIL: SALES@PALACECHEMICALS.CO.UK

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DESCRIPTION

PALACE GYP-LEVEL is a super-smooth rapid-curing floor levelling compound incorporating calcium sulphate binders along with a high level of polymer-modification making it the ideal, internal sub-floor smoothing underlayment for direct application onto an existing Anhydrite based floor screed without having to pre-seal the surface. Its fast setting properties cure rapidly give a super smooth even underlayment finish, ready to receive tiling* and decorative resilient floor coverings. It can also be used to level over sealed* concrete & cement-based floor screeds and readily bonds to flooring grade plywood overlay, existing ceramic and suitably prepared vinyl tiled floors in application depths ranging from 2 – 20mm. **PALACE GYP-LEVEL** is flexible, demonstrates excellent bond strength to existing anhydrite substrates and is suitable for use where underfloor heating systems are in place or are to be installed.

SURFACE PREPARATION

PALACE GYP-LEVEL is primarily recommended for application over a pre-existing anhydrite floor screed without the need for applying a barrier seal. Any recently laid Anhydrite base will however still require significant preparation to remove all laitance, dust & loose fragments to ensure **PALACE GYP-LEVEL** will form a stable secure bond with this class of base substrate. Older anhydrite floors must be checked to ensure they are hard, sound and free from grease, dust, floor polish, laitance and loose deleterious materials such as worn surface coatings & plaster. Any adhesive & coatings residues must first be tested to determine if they are "moisture sensitive" and then removed if necessary. Prior to laying **PALACE GYP-LEVEL**, the base anhydrite screed should be tested to confirm that it has had sufficient time to dry out to reach a consistent moisture reading of <75% R.H. (< 0.5% residual moisture content) - tested as per BS 8203:2017 - Annex B. Where it is not known whether an effective structural DPM is in place, or where the moisture test results show values in excess of 75% R.H (or > 0.5% residual moisture content), then a liquid damp-proof membrane such as moisture suppressant **PALACE 1-COAT DPM** should be applied onto the prepared concrete sub-base, before it is overlaid with **PALACE GYP-LEVEL** levelling compound. Natural room temperature drying times of this class of screed can be at a rate of 1mm screed depth per day (2mm per day is > 40mm deep), therefore the use of **PALACE 1-COAT DPM** and where this cannot be achieved within a manageable period of time, the application of **PALACE 1-COAT DPM** is recommended.

Although **PALACE GYP-LEVEL** will bond readily to most solid sub-floors, the application of a primer on highly porous surfaces will assist with maximising flow time, adhesion strength & reduce pin-holing. **PALACE MULTI-PRIME** diluted 1 part to 3 parts-water can be used for this purpose and very porous substrates may need a second coat diluted 1-part water to 1-part primer before applying **PALACE GYP-LEVEL** floor levelling underlayment.

SPECIFIC SUBSTRATE PREPARATION

PALACE GYP-LEVEL is primarily specified for use on existing anhydrite (calcium sulphate) based floor-screeds. Its' application across other substrates is limited particularly where cement-based substrates are concerned as it is still possible that an adverse reaction can occur unless the cement screed or concrete base is sealed with two coats of **PALACE MULTI-PRIME** (see tech data sheet) to form a barrier & avoid any adverse interaction between this substrate and the **PALACE GYP-LEVEL** being laid over it.

TILE BACKER BOARDS

Confirm the composition of the Tile Backer board before applying **PALACE GYP-LEVEL**, as those based on cement or a cement slurry top-coat will require pre-sealing as if they were a cement-based screed or concrete (see previous). Boards that are calcium sulphate based can be over-laid directly with **PALACE GYP-LEVEL**.

PLYWOOD OVERLAY

Check that plywood overlay is flooring grade compliant to EN 314:2 Class 3 Exterior before applying **PALACE GYP-LEVEL** and ensure that new or existing boards are pre-conditioned to the environment in which they will be used. Plywood sheets must be a thickness of 15-18mm minimum & screwed to substrate at 150mm centres. Ensure there is sufficient ventilation beneath substrate and that the plywood has been fitted competently and will take the weight of the leveller, adhesive and the final anticipated in-use loading without any risk of deflection. It should be dry and free of any contaminants, loose dust or dirt. Existing plywood showing signs of wear or abrasion will require priming with **PALACE MULTI-PRIME** diluted 3-parts water, to 1-part **PALACE MULTI-PRIME**. New, uncontaminated plywood does not require priming.



EN ISO 14001



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FLOORS COATED WITH A SURFACE DAMP PROOF MEMBRANE

Damp-Proof Membrane coatings such as **PALACE 1-COAT DPM** should be treated as non-absorbent substrates and applications of **PALACE GYP-LEVEL** should be completed within 12 hours of the DPM being first applied (Consult **PALACE 1-COAT DPM** technical data sheet). Sand blinding the freshly applied DPM will assist with improving the bond to over-laid screeds.

UNDERFLOOR HEATING SYSTEMS

Heating wires must be securely fixed to a sound consistent substrate such as cement backer board. **PALACE GYP-LEVEL** should then be applied at a thickness which allows for a clearance above the elements of no less than 5mm depth of levelling compound to ensure a smooth even finish will be attained prior to laying the finished decorative or resilient surface. Always allow at least three weeks before the heating elements are switched on at the lowest setting and then only raise the temperature progressively by 2°C per day over the following week

MIXING

PALACE GYP-LEVEL should be added to clean water in a clean container and mixed thoroughly with a power whisk fitted to an electric drill to give a smooth, lump-free, flowable & pourable levelling compound which should be applied to the intended area without delay. The recommended mixing proportions are approximately 4.0 litres of water per 20kg sack. Exceeding this recommendation will result in excess bleed and a weaker mix. The material should be mixed for a minimum of 2 minutes after the last of the powder is added ensuring the mixing head is below the surface to minimise air entrapment. Allow the mix to stand for 1 minute after which time the free-flowing screed will be ready for application directly onto the prepared substrate.

APPLICATION METHOD

Pour the freshly mixed levelling compound onto the prepared surface and use a straight edged steel float to ensure the compound is evenly spread into all areas and corners. **PALACE GYP-LEVEL** will readily flow across a flat surface and smooth out trowel marks for about 20 to 30 minutes before it begins to firm up. Do not allow the mixed material to stand for a prolonged period in the bucket as this will shorten its flow & open time. The use of a spiked roller will assist in removing air bubbles and achieving a consistent smooth surface finish, particularly between adjacent mixes of product.

Only spike roll whilst the product is still in its fluid state, usually for about 10 minutes after initial application. The maximum total application thickness for this product is up to a depth of 20mm. In ideal conditions (20°C), it will remain flowable for 20 minutes and then, after about 3 hours, the laid screed will have reached final set sufficient to take light foot traffic. All tools & mixing equipment should be washed immediately after use with clean running water before the material reaches its initial setting time.

PRECAUTIONS

PALACE GYP-LEVEL should not be applied to freshly laid concrete or cement-sand screeds, nor should it be used in areas where the finished floor is likely to be frequently wet or exposed to intermittent levels of dampness such as in & around pools showers or bathrooms. Areas where sub-floor heating are to be installed should only allow the heating to be activated gradually at 1°C per day starting from 3 weeks after initial laying. Do not apply this product when ambient temperatures are at or below 10°C or above 30°C or if they are likely to remain below 10°C for the first 24 hours. **PALACE GYP-LEVEL** is not for use as a final wearing surface and should never be exposed to an external environment.

COVERAGE

PALACE THICK-BED when applied over a smooth even non-absorbent floor at an average 3mm depth will cover at a rate of one 20kg bag per 5.0M². **PALACE THICK-BED** is not recommended as a final wearing surface. Adequate ventilation is essential during the drying process and any draughts or exposure to excessive heat sources must be eliminated to ensure consistent drying.

CURING & DRYING

PALACE GYP-LEVEL when applied at 20°C & 65% RH under ideal site conditions will allow for a working time of up to 20 minutes and then reach initial set after 1 hour. Under the above conditions it will rapidly cure to allow light foot traffic after 3 hours and will be ready to receive tiles after 4 hours and soft flooring after 24 hours.

STORAGE AND PACKAGING

PALACE GYP-LEVEL is supplied in 20kg moisture resistant bags and should have a storage life of not less than 12 months if stored in dry, un-opened and frost-free conditions.



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HEALTH AND SAFETY

Always ensure that appropriate PPE is worn when mixing & applying this product to ensure protection from airborne dust and skin contact with the mixed liquid product. Wash hands after use and launder stained clothing. Do not consume food when working with this material and keep children & animals away from any possible risk of contact. A complete PALACE material safety data sheet is available on request or online at www.palacechemicals.co.uk

QUALITY AND ENVIRONMENT

All Palace Chemicals products are manufactured under a BSI accredited ISO 9001:2015 Quality Management System, along with an ISO 14001 Environmental Management system continually working to reduce our carbon footprint.

TECHNICAL ADVISORY SERVICE

Should more specific technical information be required, contact the Palace Technical helpline on: **0151 486 6101**.

For a Technical Specification and quantity requirements, visit our 'TilingSpecifier' on the Palace website at: <http://www.palacechemicals.co.uk>

DISCLAIMER

The information provided by this Technical data sheet is given in good faith and is to the best of our current knowledge true and accurate, however it is given without guarantee, as conditions of use and workmanship involved are both beyond our control. All information supplied is subject to the company's terms and conditions of sale, copies of which are available on request.

TECHNICAL DATA	
SPECIFICATION	BS EN 13813:2002
CLASSIFICATION	CA-C30-F10
WORKING TIME @ 20°C	20 - 30min
FLOW PROPERTIES (USING A 30MM X 50MM FLOW RING)	>130mm
INITIAL SET	60 mins
FOOT TRAFFIC	180 mins
READY FOR TILING	4 hours for a 3mm layer
COMPRESSIVE STRENGTHS (N/MM2 - TO BS EN 13892-2)	1 day >9.0 7 days >20.0 28 days >30.0
FLEXURAL STRENGTHS (N/MM2 - TO BS EN 13892-2)	1 day >2.0 7 days >6.0 28 days >10.0
COVERAGE 20KG OF GYP-LEVEL POWDER MIXED WITH 4 LITRES OF WATER WILL COVER AS FOLLOWS	4.0M ² at 3mm depth 2.0M ² at 6mm depth 1.0M ² at 12mm depth
APPLICATION TEMPS	>5°C and <35°C
PACK SIZE	20kg

APPROVED RECEIVING SURFACES
✓ Tile backer boards
✓ Existing ceramic & stone tiles
✓ Anhydrite screeds*
✓ Plywood Overlay
✓ Under-floor heating
✓ Epoxy DPM

* Must be securely fixed



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