



Technical Data Sheet



PALACE MULTI-FLEX is ideal for fixing all types of ceramic tile and stone to solid surfaces, heated sub-floors and Tile Backer boards. It is a fast setting grey or white adhesive and allows grouting to proceed 3 hours after it sets to a fully water-resistant high early strength bond suitable for interior / exterior use and locations which are frequently wet.

- **Rapid setting high early strength Interior & Exterior**
- **Excellent non-slip with extended open time**
- **Fixes vitrified & natural stone tiles and most other tile types**
- **For fixing to heated sub-floors & areas subject to heavy traffic**
- **For use in pools, showers & wet-rooms under full immersion**

Description:

PALACE MULTI-FLEX is a cement-based, highly polymer modified, thin-bed ceramic tile adhesive, which conforms to BS EN 12004 Type C, Class 2FTE-S1). Available in **GREY & WHITE** for fixing all types of ceramic and porcelain FLOOR and WALL tiles, including natural stone, mosaics, porcelain and vitrified tiles in interior & exterior locations. **PALACE MULTI-FLEX** is ideally suited for application onto securely fixed & suitably rated Tile Backer boards and impermeable surfaces, such as existing tiles and dense power-floated concrete without the need to include a flexi-additive in the mix. **PALACE MULTI-FLEX** gives improved bond strength, water-resistance and is recommended for applications over sub-floor heating. **PALACE MULTI-FLEX WHITE** is particularly recommended when fixing light coloured natural stone such as Marble and Travertine.

Surface Preparation:

The substrate must be clean, firm and free of dust, dirt, oil, grease and loose flaking coatings. It must also be structurally sound and strong enough to support the expected traffic loading. **PALACE MULTI-FLEX** can be applied to dry or damp surfaces however moisture sensitive materials must be dry and remain dry after fixing. Worn or porous surfaces should be sealed with **PALACE TILERS PRIMER** diluted as 1 to 3 with water. **PALACE MULTI-FLEX** can be applied to Tile Backer boards over-laid onto a suitably rigid structure, such as well-braced 15mm waterproof ply-board screw fixed at 300mm centres to supporting battens. Applications over sub-floor heating should allow 28 days before switching the heat on. **PALACE MULTI-FLEX** is not recommended for application directly onto tongue and groove timber floorboards or floating plywood floors. Do not apply onto bare, un-sealed gypsum plaster or anhydrite floor screed before first priming this type surface with two coats of neat **PALACE TILERS PRIMER** the first diluted 1 to 1 and the second neat.

Mix Preparation:

PALACE MULTI-FLEX should be added to water in a clean container whilst mechanically stirring and mixed thoroughly to give a soft, slump-free, easily worked mortar.

The recommended mixing proportions by volume are 1-part water to 3 parts powder (Approximately 5 litres per 20kg sack). The consistency of the paste can be adjusted with slight additions of water or powder at the initial mixing stage, however part-used adhesive should never be "freshened up" with later water additions but should always be discarded once it appears to lose its' workability. In ideal conditions (20°C room temperature), **PALACE MULTI-FLEX** will remain workable for 40 to 60 minutes and then reach final set after about 2 to 3 hours. The workable open time will be shortened in higher temperatures and mix volumes should be reduced to work in smaller areas per batch.

Application Method:

For fixing ceramic tiles or mosaics, use a notched trowel to give a ribbed mortar bed on the substrate, into which the tiles are firmly bedded with a twist and slide action to ensure full contact. Use a 3mm x 3mm notch at 6mm centres for mosaics and thin flat backed wall tiling, a 5mm x 5mm notch at 10mm centres for general wall tiling and 10mm x 10mm notch at 16mm centres for floor tiling. The position of the tiles can be adjusted up to 10 minutes after initial fixing. Open time of the exposed mortar bed is approximately 30 minutes, depending on surface porosity and site temperatures. It is recommended that tiles with raised or studded back profiles, (or in situations where dampness is likely after tiling), should be back-buttered to ensure solid bed fixing. Do not trowel out an area of adhesive greater than can be tiled over within a 10-minute period. Surfaces, such as tamped concrete and masonry block-work, that are rough or uneven should be prepared with **PALACE SELF-LEVEL** floor smoothing & levelling compound and when sufficiently firm (24 – 48 hours later), followed by an application of **PALACE MULTI-FLEX** adhesive. Do not apply any cement-based adhesive onto bare, unsealed gypsum plaster or anhydrite screeds and do not allow adhesive residues to set & harden on the tile face. Do not mix or apply this adhesive when air or ground temperatures are forecast to be below 5°C or greater than 35°C at any time during the first 24 hours after application.

EN ISO 14001



EMS 85788

EN ISO 9001



FM 01010

EN ISO 18001



OHS 596309

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**BASA**



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Coverage:

When fixing on a level, even surface using a 10mm notched trowel, **PALACE MULTI-FLEX** will cover at a rate of about 4kg per sq. mtr for heavy-duty, studded tiles. When applying wall tiles, the product will cover at about 2.5 kg per sq. mtr.

Grouting:

Grouting may proceed as soon as the tile bed is sufficiently firm, which for **PALACE MULTI-FLEX** will be after 3 - 4 hours at room temperature. This period however will be extended in cold conditions. When the adhesive is fully set, wall & floor joints can be grouted using **PALACE COLOUR-LOCK GROUT** or **PALACE ANTI-MOULD GROUT**, however on wider flooring applications, joints of up to 20mm wide can be grouted using **PALACE WIDE JOINT FLEXI FLOOR TILE GROUT**.

Storage & Packaging:

PALACE MULTI-FLEX is supplied in 20kg multi-ply, moisture resistant paper sacks and has a storage life of not less than 12 months if stored in dry, un-opened conditions. Should further technical information be required, contact the Palace Technical helpline on 0151 486 6101.

Health & 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 & 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

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 summary:

Unit size:	20kg
Colours:	White & Grey
Mean bed depth:	Up to 6mm
Time till ready to grout:	3 hours*
Working pot life:	40 – 60 minutes*
Initial Set time:	2 hours at 20°C*
Application Temperatures:	5 – 25°C

- * Dependent on temperature substrate and site conditions

Wall Tiles – substrate load limits:

Wall substrates should be strong enough to support the weight of the ceramic tile or natural stone to be installed and the weight of the associated adhesive bed. The maximum weight restrictions for wall substrates are given below:

Description	Kg/M2
Gypsum plaster	20.0
Gypsum plasterboard (12.5 mm)	32.0
Cement / sand rendering & Concrete	No limit
Lightweight foam-cored tile backer boards	60.0
Glass reinforced cement-based boards	50.0
Gypsum fibreboards	40.0
Other rigid tile backer boards	#

- Consult the manufacturer

Approved receiving surfaces:

- ✓ Concrete
- ✓ Sand/cement screed
- ✓ Tile backer boards
- ✓ Cement faced fibre boards
- ✓ Anhydrite /gypsum-based screeds
- ✓ Tile on Tile*
- ✓ Firm and stable plaster (sealed)**
- ✓ Plasterboard
- ✓ Sand/cement render
- ✓ Concrete brick/block

- * Must be securely fixed

** Sealed with **TILERS PRIMER**

Performance test data:

EN 12004 – C2FTE-S1	
Improved, fast setting deformable cementitious adhesive with extended open time and reduced slip	
Early Tensile adhesion strength	> 0.5 N/mm2
Initial Tensile adhesion strength at 30 mins open time	> 0.5 N/mm2
Initial Tensile adhesion strength	> 1.0 N/mm2
Tensile adhesion strength after heat ageing	> 1.0 N/mm2
Tensile adhesion strength after freeze thaw cycles	> 1.0 N/mm2
Tensile adhesion strength after water immersion	> 1.0 N/mm2
Deformation	> 2.5mm
Reduced Slip	< 0.5mm
Reaction to Fire	NPD

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