Technical Data Sheet

SUPER-FLEX 2-PART is a two-component **GREY** or **WHITE** cement-based, highly polymer modified, thin-bed ceramic tile adhesive, which conforms to BS 5980 Type 3 Class AA and BS EN 12004 Type C, Class 1F-S2. Suitable for fixing all types of ceramic floor tiles, including mosaics, porcelain and vitrified tiles in internal & external locations where slight surface movement or vibration is likely.

- **Highly elastomeric polymer & rubber reinforced adhesive**
- **Fixes to floating floors and directly to tongue & groove timbers**
- **Fixes to impermeable surfaces such as steel / GRP decking, glazed and vinyl tiles.**
- **Ideal for direct application onto timber panels, plywood, composite boards**
- **Provides movement & stress tolerance equivalent to an anti-fracture underlay**

Description:

SUPER-FLEX 2-PART is ideal for direct application onto timber panels, plywood, composite boards as well as tongue and groove floorboards, floating plywood floors and also where sub-floor heating is installed. **SUPER-FLEX 2-PART***'s* fast-setting properties & improved flexural strength enable enhanced adhesion to non-porous surfaces such as mastic asphalt, steel / GRP decking, glazed and vinyl tiles. It is also recommended when fixing with sound reduction underlay and underfloor heating. Can also be used for dry/wet & interior/exterior conditions.

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. **SUPER-FLEX 2-PART** 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. **SUPER-FLEX 2-PART** can be applied either to Tile Backer boards over-laid onto a suitably rigid structure, such as well-braced 15mm waterproof ply-board or where necessary direct to stable & rigid timber substrates. Applications over sub-floor heating should allow 28 days before switching the heat on. Timber boarding should be waterproof rated, 15mm thick and be screw fixed at 150mm centres to provide a dimensionally stable background as described in BS 5385. All boards must be level, showing no edge protrusions and be fixed in place with a 0.5 to 1mm gap to avoid expansion stresses between the boards and around the wall perimeters, a movement joint should be installed. When fixing over a heated sub-floor allow at least 14 days for the adhesive to cure before activating the heating elements.

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:

SUPER-FLEX 2-PART should be mixed with mechanical stirring to give a soft, slump-free, easily worked mortar. Care should be taken to ensure the full powder content is mixed into the complete volume of latex and when a consistent mix is achieved allow about 5 minutes for the paste to body up. **SUPER-FLEX 2-PART** is always supplied as a two-component "bag and bottle" combination and the powder component should NEVER be mixed with water, but only the **SUPER-FLEX LATEX**, which is supplied together with the powder. Part-used adhesive should never be "freshened up" with additional measures of latex but should always be discarded once it appears to lose its' workability. In ideal conditions (20'C), **SUPER-FLEX 2-PART** will remain workable for 30 to 40 minutes and then reach final set after about 3 to 4 hours.

Application Method:

For fixing ceramic tiles or mosaics, use a flooring grade broad notched trowel (10mm x 10mm notch at 16mm centres) to give a ribbed mortar bed on the substrate, into which the tiles are firmly bedded with a twist and slide action to ensure a full "solid-bed" contact is achieved, leaving no voids beneath the tiles. The position of the tiles can be adjusted up to 10 minutes after initial fixing. Open time of the exposed mortar bed is approximately 20 minutes, depending on surface porosity and site conditions. Do not trowel out an area of adhesive greater than can be tiled over within a 10-minute period. It is recommended that tiles with raised or studded back profiles should be back- buttered immediately prior to fixing, to ensure solid-bed full contact with the surface adhesive bed. The final adhesive bed depth should be in the range of 3 to 4mm. Expansion joints should be planned and installed in large floor areas in accordance with the recommendations of BS 5385. Maximum adhesive bed depth is 6mm. Always use a rapid setting white adhesive when fixing moisture sensitive light natural stone to promote early drying & strength development.

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Coverage:
When fixing on a level, even floor surface using a 10mm notched flooring trowel, **SUPER-FLEX 2-PART** will cover at a rate of about 3 to 4kg per sq. metre for heavy-duty, studded tiles fixed in a solid bed of adhesive.

Grouting:
Grouting may proceed as soon as the tile bed is sufficiently firm, which depending upon site conditions can be from 24 hours after fixing on porous surfaces such as plaster or up to 7 days where tiles have been fixed to an impermeable surface such as existing tiles. In areas subject to frequent wetting, such as power showers, a cement-based grout such as **PALACE COLOUR-LOCK GROUT** or **PALACE ANTI-MOULD GROUT** is recommended.

Storage & Packaging:
SUPER-FLEX 2-PART is supplied with a 20 litre mixing bucket containing 8kg of powder and 5 litres of latex additive 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 & overalls are worn when applying this product. Wash hands after use and launder stained clothing. 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 footprint

Precautions:
Note when used to fix wall tiles supporting battens may be required.

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.

Technical summary:

Unit size:	8kg & 5 litre packed
Colour:	Grey or White
Mean bed depth:	3mm
Time till ready to grout:	24 hours*
Ribbed bed open time:	20 minutes*
Initial Set time:	3 - 4 hours*
Application Temperatures:	>5'C & <35'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 *(sealed with Tilers Primer)*	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 render
- ✓ Tile backer boards
- ✓ Gypsum finishing plaster*
- ✓ Plasterboard*
- ✓ Existing tiles**
- ✓ Concrete brick/block
- ✓ Steel Decking
- ✓ GRP [Internal]
- ✓ 15-18mm WBP Plywood overlay*
- ✓ Tongue & Groove timbers

** Tanked where necessary*
***Must be securely fixed*

Performance test data:

EN 12004 – C1F-S2

Improved, fast setting & highly deformable cementitious adhesive

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	> 0.5 N/mm2
Tensile adhesion strength after heat ageing	> 0.5 N/mm2
Tensile adhesion strength after freeze thaw cycles	> 0.5 N/mm2
Tensile adhesion strength after water immersion	> 0.5 N/mm2
Deformation	> 5.0mm
Reaction to Fire	NPD

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