



# Technical Data Sheet



**PALACE HEAT RESIST ADHESIVE** is a fast setting adhesive which cures to give a high strength durable bond in areas where tiles are fixed on solid masonry walls & floors surrounding a radiant source of heat which is not in continuous use, nor where the surface is exposed to temperatures in excess of 250°C. This includes walls & floors surrounding a domestic log burning fire, cooking range/stove or oven. It is a pale grey powder-based blend of special hydraulic binders which when mixed with water gives a non-slump fast setting paste suitable for fixing ceramic, porcelain and vitrified tiles.

- **Fast setting - High early strength**
- **Polymer fortified for porcelain & vitrified tiles**
- **Can be exposed to temperatures up to 250°C**
- **Fixes tiles to solid surfaces around a radiant source of heat**

## Description:

**PALACE HEAT RESIST ADHESIVE** should only be used for fixing tiles onto solid masonry surfaces or rigidly fixed cement board structures which are stable when exposed to high temperatures. It is important to confirm that all tiles selected for use in this type of location are also similarly heat resistant. **PALACE HEAT RESIST ADHESIVE** complies with the requirements of EN 12004 C2FT-S1.

## Surface Preparation:

The receiving substrate must be of solid construction and stable when exposed to high temperatures. It must be clean, firm and free of dust, dirt, oil, grease and loose flaking coatings. Worn or porous surfaces should be sealed with **TILERS PRIMER [SBR]** diluted as 1 to 3 with water.

**PALACE HEAT RESIST ADHESIVE** is not recommended for application directly onto any substrate which may be subject to shrinkage, warping or any type of movement or degradation when subject to elevated temperatures likely to be reached within the intended working environment.

## Mix Preparation:

**PALACE HEAT RESIST ADHESIVE** 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 (Approx 1.25 litres per 5kg sachet). 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 HEAT RESIST ADHESIVE** will remain workable for 30 to 40 minutes and then reach final set after about 2 - 3 hours depending on site temperatures, which if high will result in shorter working time

## 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 20 minutes, depending on surface porosity and site temperatures. It is recommended that tiles with raised or studded back profiles, 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. When the tiled area is complete do not expose it to elevated temperatures for a minimum of 3 weeks after fixing as this will allow the adhesive and grout to cure and gain full strength without risking of being dried out too quickly

## Precautions:

Due to the temperature variations & thermal stresses likely to existing in areas & locations for which this adhesive is intended, it is advisable to ensure that Movement Joints are always installed in all corners & wall to floor junctions and in any other joints abutting surrounding masonry, or over any pre-existing structural joints.

## Coverage:

When fixing on a level, even floor surface using a 10mm notched trowel, **PALACE HEAT RESIST ADHESIVE** will cover at a rate of about 2.5kg per sq. mtr for flat tiles on walls however when fixing heavy-duty, studded tiles on floors subject to load, a coverage rate of approximately 4.0 kg per sq. mtr should be expected.

EN ISO 14001



EMS 85788

EN ISO 9001



FM 01010

EN ISO 18001



OHS 596309

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## Grouting:

Grouting may proceed as soon as the tile bed is sufficiently firm, which at the earliest is 3 to 4 hours after fixing tiles. In view of the temperature range expected the use of a premium quality grout which conforms to EN13888 CG2WA such as **PALACE COLOUR-LOCK** is advised.

## Storage & Packaging:

**PALACE HEAT RESISTANT ADHESIVE** is supplied in a 10kg mixing bucket in 2 x 5kg sealed sachets 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](http://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:

<b>Unit size:</b>	10kg
<b>Colours:</b>	Light Grey
<b>Mean bed depth:</b>	Up to 6mm
<b>Time till ready to grout:</b>	3 hours*
<b>Working pot life:</b>	1 hour*
<b>Initial Set time:</b>	2 hours*
<b>Application Temperatures:</b>	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 ( <i>sealed with Tilers Primer</i> )	n/a
Concrete block-work & brickwork	50.0
Cement / sand rendering & Concrete	No limit
Glass reinforced cement-based boards	50.0
Other rigid cement-based backer boards	50.0

# - Consult the manufacturer

## Approved receiving surfaces:

- ✓ Concrete
- ✓ Sand/cement screed
- ✓ Cement based Tile backer boards
- ✓ Sand/cement render
- ✓ Concrete brick/block
- *Must be securely fixed*

## Performance test data:

EN 12004 – C2FT-S1 Improved Fast setting & Deformable cementitious adhesive with extended open time	
Initial Tensile adhesion strength at 20 mins open time	> 0.5 N/mm2
Initial Tensile adhesion strength	> 0.5 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
Reduced Slip	< 0.5mm
Deformation	>2.5mm
Reaction to Fire	NPD

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