

TECHNICAL DATA SHEET – PORCELAIN 12HR TILE ADHESIVE

ISSUED 20TH FEBRUARY 2018



PORCELAIN 12HR TILE ADHESIVE

TECHNICAL DATA SHEET

PRODUCT DATA SHEET - PTA12/1955

FEBRUARY 2018



Product Description

Tile Tak Porcelain 12hr Tile Adhesive is a quick setting high strength grey cement-based tile adhesive is designed for the fixing of porcelain and other non-porous tiles (e.g., natural stones, vitrified etc.) onto all types of cement-based surfaces as well as other pre-primed surfaces. This product is suitable for both wall & floor applications as well as installing tiles in intermittently wet areas as well as underwater applications. This product can be used in interior & exterior applications. The Product has a pot life of 120 minutes.

Features

- Quick Setting – 12hr
- High Strength
- Easy to Use

TECHNICAL DATA

Adhesive Type	Grey cement-based tile adhesive
Colour	Grey
Packaging	20kg double ply paper sack
Setting Type	Quick setting – 12hr
Application Temperature	Range 10°C - 30°C
Open Time	15 – 20 minutes
Correction Time	15 minutes
Final Set	12 hours @ ambient 25°C
Pot Life	120 minutes – after mixed
Mixing Ratio	5lt water/20kg Porcelain 12hr
Flexibility	Poor – Increased flexibility when water replaced with Tile Tak Tile Bond
Water Resistance	Poor – Increased water resistance when water replaced with Tile Tak Tile Bond
Shelf Life	3months from date of manufacture

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SURFACE PREPATRATION

New floors & walls must be allowed to cure as directed below to ensure that the tile application is not affected by shrinkage/movement during the curing process:

- New concrete: 6 weeks
- New screed: 4 weeks
- New Plaster: 2 weeks
- Nre Brickwork: 4 weeks

Ensure that surfaces to be tiled are sound (no cracks & crumbling), clean, free of dust, release agent or any type of surface dampness. Any fungicide must be treated and killed before applying any tile adhesive.

Very smooth surfaces such as steel trowelled floors & off shutter concrete must be acid washed to remove laitance and then rinsed with cold water. The floor must then be primed with a slurry coat of 1-part Tile Tak Tile Key to 2 parts 42.5mPa - cement.

Painted surfaces, gypsum and old surfaces of bitumen must be chipped to expose at least 80% of the original substrate. The floor must then be primed with a slurry coat of 1-part Tile Tak Tile Key to 2 parts 42.5mPa cement.

High porous surfaces can negatively affect the bond strength of the tile adhesive. Check the porosity of the substrate by applying a small quantity of water. If the moisture is completely absorbed within 1 minute than the surface is too porous and will need to be sealed & primed. Prime with a slurry coat of 1-part Tile Tak Tile Key to 2 parts 42.5mPa cement.

MIXING

The mixing of the tile adhesive can be done using a mechanical mixer or by hand using a paddle. Add 20kg Tile Tak Porcelain 12hr to 5 lt of clean, cold water and mix into a smooth paste. It is always advisable to use a full bag in 1 mix. Once mixed into a smooth, lump free consistency allow to stand for 5 minutes before mixing again before use. Use with 120 minutes.

Where the application is external or in wet applications (i.e., showers etc.), or high traffic installations or where flexibility is required (i.e., high ambient variations etc.) replace the water in the mix with Tile Tak Tile Bond.

When mixing tile adhesive please remember the following:

- When mixing always add powder to water to avoid excess lumping during mixing. Never add more liquid to a bag than specified – 5lt water to 20kg Tile Tak Porcelain Tile Adhesive.
- If the product begins to stiffen after been mixed never add extra water as this will compromise the integrity of the tile adhesive system.
- Cold ambient conditions will extend the drying time & alternately hot ambient conditions will shorten the working time of the tile adhesive.
- Always clean the mixing apparatus with clean water before the tile adhesive hardens.
- Never wash cement-based tile adhesive down the drain as polluting the system may contravene the bye laws and blockages will occur.

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PRODUCT APPLICATION

Before tiling commences ensure that the tiles are dry, and the back of the tile is free of dust & other surface contaminants that may affect the adhesion of the tile to the substrate.

Apply the mixed tile adhesive to the surface using a wall trowel for lightweight wall tiles (notches 6mmx6mmx6mm) and a floor trowel for floor tiles (notches cut 12mmx12mmx12mm) & heavy walls tiles where a solid bed of tile adhesive is necessary.

Tile Tak Porcelain 12hr can be applied in a bed thickness of 3mm – 15mm and up to 20mm in isolated sections. For greater bed depth we would recommend that a “butter” bed be laid beforehand.

When laying the tiles, we would recommend that only sufficient tile adhesive be spread to accommodate tiles that can be laid within 15 minutes. If the tile adhesive when laid is left exposed for more than 15 minutes the adhesive will skin. If skinning was to occur the tile adhesive must be respread before laying the tiles. When installing tile panels, it always good practice to “twist” the tiles when bedding the tile.

Once the tiles have been laid, bed the tiles into the tile adhesive using a rubber mallet. Again, it is good practice to remove tiles once laid to check the adhesive contact with the back of the tile. When laying large tiles, it may be necessary to “butter” the back of the tile panel before laying to ensure full adhesive contact between the tile and the substrate. Never ever use a 5-spot mixing method when lay wall or floor tiles.

Never butt joint tiles. It is good practise to leave a grout joints varying from 2-3mm for ceramic wall tiles, 3mm for porcelain & marble, and 6mm for ceramic floor tiles & natural stone floor tiles. Clean the tile adhesive out of all the grout joints and parameter joints before the tile adhesive harden.

When laying tile in large areas it is essential not to tile over expansion joints, structural joints. These joints must be carried through the tile panel and filled with a compressible compound (silicone sealant etc.) Movement joints must be installed in tiling every 5 metres running in both directions, and 3 metres in exterior applications. See section on MOVEMENT JOINTS.

Should the tile adhesive begin to stiffen in the bucket, the pot life of the tile adhesive is nearing. Do not add extra water to try and thin out the tile adhesive.

Special Notes

- Allow for 8-10hrs drying before grouting.
- Mechanically support large wall tile laid for 10-12 hours.
- All exterior tile application must be protected from the sun and incumbent weather for 12-24hours. This is to prevent rapid drying. Tiles to protected from Rain for at least 12 hours.
- Cater for longer setting times when large tile panels are laid i.e., 1mt x 1mt
- Ensure that the tile panel has full contact with the tile adhesive. It is good practice to check laid tiles on a regular basis for full tile adhesive contact. Any voids beneath floor tile panel will result in cracked tiles.

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GROUTING – WALL & FLOOR PANELS

- Ensure that the tile adhesive has been removed from the joints
- Allow for 8-10 hours before grouting the joints
- Do not grout with pure cement
- Grout with Tile Tak Wall & Floor Grout
- In wet conditions replace the water in the mix with Tile Bond

Use Tile Tak Wall & Floor Tile Grout to grout the joints. Please refer to the Tile Grout product data sheet for mixing & application instructions.

MOVEMENT JOINTS

Tile panel movement joints should be installed as follows:

- Movement joint for internal application must be installed in both directions at 4 metre intervals running in both directions
- Movement joints for exterior applications must be installed in both directions at 3 metre intervals running in both directions
- Movement joints must also be catered for in both internal & exterior applications around the perimeter of all floors
- Movement joints must be installed around all vertical & horizontal corners and must be carried through all structural joints in the same thickness as the structural joint.

All tile panel movement joints must be 5-6mm in width and must be carried through the tile panel and extend through the tile adhesive. The movement joints must be filled with a recommended polyurethane joint sealant.

GENERAL INFORMATION

CLEANING

Dry Powder Spillages. Do not allow for water exposure. Sweep up & Discard in accordance with the by-laws.

Wet Adhesive Spillages. Pick up the wet adhesive before the product dries & wipe down affected areas with a damp cloth/sponge. Discard in accordance with the by-laws.

STORAGE & SHELF LIFE

When stored in dry conditions, off the floor & out of direct sunlight, the shelf life is 3months.

PACKAGING

Tile Tak Porcelain 12hr is supplied in 20kg bags

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SAFETY & WARNING

Precautions:

The following precautions must be adhered to:

- Ensure that the above instructions are adhered to at all times and do not adulterate the product in any way as this could result in tile failure.
- Rubber gloves should be used when applying Tile Tak Porcelain Tile Adhesive. In the event of skin irritation, rinse the affected area under cold water. Consult a medical doctor if the irritation persists.
- Keep the product away and out of reach from children and pets.
- Use a respirator when handling the dry product.
- This guideline only serves as a basic manual for the surface preparation product selection and installation procedure for this type of application. Each installation needs to be assessed and the products used, and the procedures followed should be in accordance with the SABS Code for the design and installation of ceramic tiles SABS 10107:2011

GUARANTEE

Tile Tak products are manufactured and tested within in-house procedures and are guaranteed to be free from any manufactured defects and fit for specified purposes. This guarantee is subject to the performance of Tile Tak products when applied in strict accordance with the application specifications for the specific project, where good workmanship is adhered to. As Tile Tak has no influence over specific site conditions it is important that the applicator will always carry out sufficient testing of the product to satisfy themselves that the product is suitable for the intended purpose. Tile Tak will not be liable for inadequate workmanship nor any defects due to external factors beyond the control of Tile Tak including, unsound structures, building movement, development of cracks etc., nor product adulteration or product misuse.

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