Document No. GT.TDS.v1.0
Technical Datasheet
Date: 01/11/18
Python GT

GET A GRIP!

PYTHON ADHESIVES

PYTHON GT A HIGHLY FLEXIBLE - RAPID SETTING FLOOR & WALL TILE ADHESIVE

- Suitable for fixing ceramic, porcelain and natural stone tiles
- Developed for fixing to timber substrates
- Ideal for use with underfloor heating systems
- Suitable for use on floating floors
- Bonds to metal surfaces
- Internal and external use
- No additives required

S2 Flexible
EN 12002 Class

WALK ON AND GROUT AFTER 3 HOURS

3-12mm BED THICKNESS

DESCRIPTION

Python GT is a high specification, polymer modified, highly flexible rapid setting cement based floor and wall tile adhesive with increased adhesion properties.

Python GT has been specially formulated for fixing a large variety of tiles including ceramic, porcelain and natural stone tiles to substrates subject to limited movement and/or vibration such as plywood overlay and underfloor heating systems.

Python GT is also suitable for fixing to difficult substrates such as fibreglass and metal surfaces. Python GT has been formulated to allow tiling onto cement based green screeds after 7 drying days.

Python GT is suitable for fixing quartz or composite tiles. Its rapid setting capability allows for light foot traffic and grouting after 3 hours.

Python GT is ideal for areas subject to prolonged or permanent wet conditions such as swimming pools. Python GT can be used internally and externally and it is unaffected by frost after setting.

NOTE

Python GT is suitable for use with natural stone tiles but suitability with very porous and sensitive natural stone tiles must be tested prior to use. Confirmation of suitability should be sought from the supplier of the natural stone tiles or alternatively, please contact our technical department on 020 8778 9000, we will be happy to assist.

PREPARATION

Before starting, all substrates must be clean, dry and strong enough to support the weight of the tiles, tile adhesive and grout. Remove all dust, dirt, oil, grease and other contaminants that may affect adhesion.

MIXING & APPLICATION

Only mix small quantities at a time until you have become accustomed to the fast setting nature of the product. Always mix powder to water and mix to a smooth and lump free consistency. As a guide for powder to water ratio, 20kg of powder requires approximately 3.6 – 3.8 litres of water. Never add water after initial mixing, as this will impair the strength of the adhesive. Product that has started to set must be discarded.

NB: When fixing large format tiles, natural stone tiles and tiles that have deep studs on the back, you must skim the back of the tile with a thin 1 – 2mm layer of adhesive, this is referred to as back buttering. This will significantly improve the bond strength.

On a flat, even substrate where dry conditions exist, apply adhesive to the substrate as a thin floated coat at a uniform thickness of 3mm – 6mm and then rib / comb out using a suitable notched trowel. Where substrate conditions do not allow thin bed fixing, Python GT can be applied to a maximum bed thickness of 15mm. Ensuring the adhesive is still moist, bed tiles into adhesive using a twisting action ensuring full coverage of adhesive between tile and substrate. Regular checks should be made to make sure that there are no voids in the adhesive bed.

NB: When fixing tiles externally or in areas subject to prolonged or permanent wet conditions, you must ensure that you achieve 100% adhesive coverage between tile and substrate.

Clean surplus adhesive from the tiles and joints as soon as possible as set adhesive will prove very difficult to remove later.

Clean tools after use with water.

GROUTING

Do not start grouting until the adhesive has set. This time can vary depending on temperature and site conditions. Impervious surfaces may extend the set time. In ideal conditions grouting can begin after 3 hours. If you are tiling an area of limited movement, or underfloor heating you must use a flexible grout such as Python CS.

NB: If using Python GT onto a substrate subject to significant movement and/or vibration such as T&G Floorboards or floating floors, Python CS will require the addition of a flexible additive in order to increase the flexural properties of the grout. For more information please contact our technical department on 020 8778 9000, we will be happy to assist.

Tiles

- Ceramics
- Porcelain
- Marble
- Travertine
- Limestone
- Slate
- Granite
- Terracotta
- Mosaics
- Quarry
- Quartz
- Composite

Suitable | Not suitable

Substrates

- Sand/Cement Screed
- Concrete
- Plywood Overlay (6mm min)
- Electric Underfloor Heating
- Water/Wet System Underfloor Heating
- Tile Backer Boards
- Existing Ceramic, Porcelain and Natural Stone Tiles*
- Flooring Grade Asphalt & Bitumen*
- Anhydrite Screeds
- Plaster
- Plasterboard
- Fibre Cement Sheet
- Cement/Sand Render
- Concrete Brick/Block
- Flooring Grade Asphalt & Bitumen
- T & G Floorboards
- Floating Floors
- Existing Vinyl Tiles*
- Steel/Metal Surfaces*
- Fibreglass
- Green Screed

*Prime with PR Suitable | Not suitable

SUBSTRATE PREPARATION GUIDE

Concrete & Sand/Cement Screed: Python GT is designed for application onto green screeds. New screeds must be allowed to dry for a minimum of 7 days, with good drying conditions. Remove any laitance from the surface mechanically and ensure that mould oil, curing agents and any other contaminants are removed. Ensure the surface is dry and free of any contaminants, loose dust or dirt. Prime the surface with Python PR diluted 3 parts water to 1 part Python PR and allow to dry. Very porous substrates may require more than one coat.

Flooring Grade Asphalt/Bitumen: New sand/cement screed must be left for a minimum of 4 weeks to dry sufficiently. Remove any laitance from the surface mechanically and ensure that mould oil, curing agents and any other contaminants are removed. Remove all dust and dirt ideally by vacuum. Prime the surface with Python PR diluted 3 parts water to 1 part Python PR and allow to dry. Very porous substrates will require more than one coat.

Existing Ceramic, Porcelain & Natural Stone Tiles: Ensure that the flooring grade asphalt/bitumen is in good condition and that there are no signs of de-bonding and/or hollowness. Make sure the surface is dry and free of any contaminants, loose dust or dirt. Prime the surface with one coat of Python PR + Grip and allow to dry.

Gypsum Plaster: New plaster must be allowed to dry for a minimum of 4 weeks. Ensure the surface is dry and free of any contaminants, loose dust or dirt. If the plaster has a polished/shiny surface, brush with a stiff bristle brush to abrade/roughen the surface prior to application. Prime the surface with 2 coats of Python PR, both coats diluted 3 parts water to 1 part Python PR. Allow the first coat to become touch dry before applying the second coat. The combined weight of the tile, tile adhesive and grout should not exceed 20kg / m^2.

Gypsum Plasterboard: Ensure the surface is dry and free of any contaminants, loose dust or dirt. Prime the surface with one coat of Python PR diluted 3 parts water to 1 part Python PR. The combined weight of the tile, tile adhesive and grout should not exceed 32kg / m^2.

Plywood Overlay Prior to tiling, ensure that new or existing boards are dry, i.e. conditioned to the environment in which they will be used. Plywood must be 6mm (minimum), flooring grade, screwed (not nailed) to substrate at 6 inch/150mm centres. Ensure there is sufficient ventilation beneath the substrate and that the plywood has been fitted competently and will take the weight of the tiles, tile adhesive and grout. Ensure the surface is dry and free of any contaminants, loose dust or dirt. Existing and/or lightly contaminated plywood requires priming with Python PR diluted 3 parts water to 1 part Python PR. New, uncontaminated plywood does not require priming prior to tiling.

Tongue & Groove Boarding and Floorboards: Prior to tiling, ensure that new or existing boards are dry i.e. conditioned to the environment in which they will be used. Existing tongue and groove boards should be screwed (not nailed) to supporting joists at 12 inch/300mm centres. Including cross-noggins might be necessary in order to provide a rigid, flat and adequately braced surface. Ensure there is sufficient ventilation beneath the substrate and that the substrate has been fitted competently and will take the weight of the tiles, tile adhesive and grout. Ensure the surface is dry and free of any contaminants, loose dust or dirt. Existing and/or lightly contaminated timber requires priming with Python PR diluted 3 parts water to 1 part Python PR. New, uncontaminated timber does not require priming prior to tiling.

Certain manufacturers of chipboard flooring do not recommend their products as suitable for being tiled to directly. If in doubt, please consult with the supplier of the board or alternatively contact our Technical Helpline on 020 8778 9000, we will be happy to assist.

Underfloor Heating Systems: When tiling onto existing underfloor heating you must switch the heating off 48 hours prior to tiling to allow the substrate to cool sufficiently. When tiling has been completed allow 1 week for full cure of tile adhesive and grout before switching the heating on. When doing so, start with a low temperature and gradually increase the temperature on a daily basis by no more than 2°C per day. When tiling on to a new electric element underfloor heating system, the electric underfloor heating mat/element should be embedded into a self-levelling compound such as Python LR or Python FL in order to protect the heating element and to leave a perfect surface on which to apply tiles. Again, allow one week for full cure before switching the heating on, start with a low temperature and gradually increase the temperature on a daily basis by no more than 2°C per day.

Underfloor Heated Screeds must be commissioned prior to tiling. Turn on the heating system at a low temperature and heat the screed gradually by no more than 5°C per day until a maximum temperature of 25°C is achieved. Maintain this temperature for 3 days and then switch the heating off 48 hours prior to tiling to allow the substrate to cool sufficiently. Alternatively, in cold conditions, reduce the temperature of the screed to below 15°C prior to tiling. When tiling has been completed allow 1 week for full cure of tile adhesive and grout before switching the heating on. When doing so, start with a low temperature and gradually increase the temperature on a daily basis by no more than 2°C per day.

Concrete Blocks: Ensure surface is dry and free of contaminants, loose dust and dirt. Prime the surface with one coat of Python PR diluted 3 parts water to 1 part Python PR and allow to dry.

Anhydrite/Gypsum Screed: Anhydrite/Gypsum screeds must be confirmed dry via consistent moisture readings across the whole floor. As an approximate guide for drying times, allow 1 day per mm up to an overall depth of 40mm and 2 days per mm for anything above 40mm. The drying of anhydrite/gypsum screeds can be assisted by commissioning the underfloor heating system, for further information, please contact our Technical Helpline. All anhydrite/gypsum screeds must be mechanically sanded/abraded prior to tiling in order to remove the laitance from the surface of the screed.

Python Adhesives preferred tile adhesive for use on anhydrite/gypsum screeds is Python AF. Python AF is a gypsum based tile adhesive which is 100% compatible with anhydrite/gypsum screeds. When using Python AF, the residual moisture content of the screed must be less than 1%. Alternatively, the relative humidity must be 85% or below. Once these levels have been reached and the surface is free of any contaminants, loose dust or dirt, prime the surface with one coat of Python PR diluted 3 parts water to 1 part Python PR and allow to become touch dry. Tiling can then commence with Python AF.

Python GT is also suitable for use on Anhydrite/Gypsum screeds providing the residual moisture content of the screed is below 0.5%. Alternatively, the relative humidity must be 75% or below. When using Python GT onto Anhydrite/Gypsum screed, the surface of the screed needs priming with 2 coats of Python PR. The first coat of Python PR must be diluted 3 parts water to 1 part Python PR. Apply the first diluted coat and allow to become touch dry before applying a second coat of neat Python PR.

Tile Backer Board: Ensure the surface is dry and free of any contaminants, loose dust or dirt. Prime the surface with one coat of Python PR diluted 3 parts water to 1 part Python PR and allow to dry. Alternatively refer to the board manufacturers priming instructions.

Existing Vinyl Tiles/Sheet Vinyl: Make sure the existing vinyl tiles/sheet vinyl is firm, stable and well adhered to the substrate to which the vinyl was originally applied to. Ensure the surface is dry and free of any contaminants, loose dust or dirt. Existing vinyl that has been previously treated with sealer must be sufficiently cleaned in order to remove any surface treatments. Prime the surface with one coat of Python PR and allow to dry.

Power Floated Concrete: Ensure the surface has been allowed 7 days to cure. Power floated concrete can leave a loose top layer and/or laitance once it has cured. Remove the loose top layer and any laitance from the surface mechanically or by acid etching and remove all dust and particles ideally by vacuum. Once all laitance has been removed, prime the surface with one coat of Python PR diluted 3 parts water to 1 part Python PR.

Metal Surfaces: Ensure the surface is dry and free of any contaminants, loose dust or dirt. Some metal surfaces have an oil applied to protect the surface, this must be removed by de-greasing prior to tiling. Prime the surface with one coat of Python PR and allow to dry.

Fibreglass: Ensure the surface is dry and free of any contaminants, loose dust or dirt. Some fibreglass surfaces dry with a particularly shiny finish, this must be removed by sanding the surface prior to tiling. Prime the surface with one coat of Python PR and allow to dry.

HEALTH AND SAFETY

Python GT Adhesive contains cement. Contact with moisture or gauging water sets off an alkaline reaction which may cause skin irritation and/or caustic burns to mucous membranes (e.g. eyes). Irritant to respiratory system. Risk of serious damage to eyes, therefore avoid contact with eyes and prolonged contact with skin. Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Wear suitable gloves (e.g. cotton gloves soaked in nitrile) and eye/face protection. If swallowed, seek medical advice immediately and show this container or label. Keep out of reach of children. Low in chromates.

For further information refer to the Material Safety Data Sheet.

The information contained on this spec sheet is given voluntarily and in good faith. It is to the best of our knowledge true and accurate; however it may contain information which is inappropriate under certain conditions of use. The company cannot accept responsibility for any loss or damage due to inappropriate use or the possibility of variations of working conditions and of workmanship outside our control.

Technical Data	
Standard Conformity	Conforms to BS EN 12004 C2 F S2
Bed Thickness	3mm – 15mm
Coverage	20kg will cover approximately 4 – 6m^2 at 3mm bed application
Open Time/Working Time	Approximately 30 minutes at 20ºC
Before Grouting	Approximately 3 hours depending on temperature and substrate. The set time will be increased by lower temperatures and reduced at higher temperatures. * Tiling onto an impervious substrate with a non-porous tile will increase the set time.
Storage	Store unopened, clear of the ground in cool, dry conditions
Shelf life	Stored correctly this product has a shelf life of 6 months
Colours	Grey and White
Pack sizes	20kg
Note	All work must be carried out in accordance with British Standard Code of Practice for floor and wall tiling BS5385.

CE
13

Python Adhesives Ltd
Teardrop Centre
London Road
Swanley
London
BR8 8TS

EN 12004:2007 + A1:2012 | Improved fast setting highly deformable cemetitious adhesive	
Transverse Deformation	>5mm
Bond Strength, as	
• early tensile adhesion strength	>0.5 N/mm^2
• initial tensile adhesion strength	>1.0 N/mm^2
Durability, for	
• tensile adhesion strength after heat ageing	>1.0 N/mm^2
• tensile adhesion strength after water immersion	>1.0 N/mm^2
• tensile adhesion strength after freeze/thaw cycles	>1.0 N/mm^2