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Technical Datasheet
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Python HF



PYTHON HF A RAPID SETTING, HIGH PERFORMANCE TWO PART SMOOTHING COMPOUND

-  **Install decorative floor coverings after 4 hours and ceramic tiles after 3 hours**
-  **Suitable for use over old adhesive residues including bitumen**
-  **Moisture tolerant - can be used below a dpm**
-  **Excellent flow and self-levelling properties**
-  **Ideal for use above underfloor heating systems**
-  **Ideal for timber substrates**
-  **Apply directly to a DPM within 24 hours without priming**
-  **Low odour**

PROTEIN
FREE

WALK ON IN
90MINS

2-12mm BED
THICKNESS

DESCRIPTION

Python HF is a rapid setting, high performance latex based two-part self-levelling floor compound. The specially formulated powder component is mixed with a pre-gauged, protein free polymer latex liquid, giving a free-flowing, shrinkage compensated self-levelling floor compound.

Python HF has excellent flow and adhesion properties making it suitable for a wide range of both commercial and domestic applications. These unique properties ensure that Python HF can be used with confidence without the need to prime the large majority of substrates. Python HF is suitable for use over a wide range of substrates including sand/cement screeds, concrete, flooring grade asphalt/bitumen, ceramic, porcelain and terrazzo tiles, rigid steel, moisture tolerant old adhesive residues, epoxy damp proof membranes and plywood.

Python HF is also ideal for encapsulating electric underfloor heating elements and for use over underfloor heated screeds.

Once mixed, Python HF will remain workable for 20 - 25 minutes and it will accept light foot traffic after 90 minutes in ideal conditions. Decorative floor coverings can be installed after 4 hours and ceramic tiles can be applied after 3 hours. Python HF can be applied from depths of 2mm – 12mm in one application.

Python HF is moisture tolerant and it can be used to smooth subfloors prior to the installation of a DPM.

PREPARATION

Before starting, all substrates must be clean, dry and strong enough to support the weight of the leveller and the final floor covering being applied. Remove all dust, dirt, oil, grease and other contaminants that may affect adhesion. Where traces of adhesive residue remain, these must be checked to ensure that they are

not softened with water and that they are strong, sound and well adhered to the substrate in order to receive a levelling compound.

When installing moisture sensitive floor coverings, the concrete or sand/cement screed should be confirmed dry by consistent moisture readings; <75% relative humidity (RH) or <0.5% residual moisture when tested in accordance with BS 8203. Where a structural damp proof membrane is not present or where rising damp and/or residual moisture results in moisture readings up to 98% RH, a liquid damp proof membrane such as a fast one coat DPM must be applied before or after the application of Python HF. Surface laitance should be removed from concrete and sand/cement screed surfaces prior to application.

Most substrates do not require priming prior to the application of Python HF. Priming the substrate however will minimize the risk of pinholes forming, allow for the best flow properties and also prolong the working time of the product. Priming the substrate prior to application whilst not necessary, it is considered “best practice”. For recommended priming dilution rates please refer to Page 3 of this data sheet.

Prior to levelling timber substrates ensure that timber boards are securely screwed down and firmly fixed. Where timber substrates are sufficiently rigid but uneven or worn, Python HF can be used to smooth and level the timber substrate prior to over-boarding with plywood overlay or a tile backer board. If following this process, allow Python HF to cure before fitting the overlay boarding.

MIXING AND APPLICATION

Shake the pre-gauged bottle of liquid polymer and pour into a suitable clean mixing vessel. Add the powder component slowly whilst mixing with an electric paddle and continue to mix for a further 2 minutes until a smooth and lump free consistency is obtained, allow the product to stand for a further 2 minutes prior to application.

Once mixed do not add further polymer liquid or water.

N.B. Once mixed, Python HF will remain workable in the bucket for 20 - 25 minutes at 20°C.

Pour a small quantity onto the prepared surface and trowel down lightly to a depth between 2mm and 12mm. The use of a spiked roller is recommended immediately in order to remove entrapped air and smooth out flow lines. Setting time will depend on atmospheric conditions/temperatures, it will be slowed by lower temperatures and accelerated by higher temperatures.

If the substrate is impervious or if it contains old adhesive residues, Python HF should be applied to a minimum overall thickness of 3mm. This is to ensure the uniform drying of the adhesives that

are subsequently applied to the Python HF, it will also ensure that there is no interaction between the new adhesive and old adhesive residues.

SETTING AND COVERING

In ideal conditions, Python HF will accept light foot traffic after 90 minutes. Python HF must be left to dry before applying the final decorative surface flooring. This is typically after 4 hours for decorative flooring such as vinyl and 3 hours for ceramic tiles, however, this can vary depending on the choice of surface flooring. Thicker applications may require a longer time to dry prior to applying floor coverings. If there is no air flow within site conditions, the drying time may be restricted. The critical moisture content for the flooring in question must be observed.

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
- ◇ T & G Floorboards
- ◇ Floating Floors
- ◇ Plasterboard
- ◇ Existing Vinyl Tiles
- ◇ Steel/Metal Surfaces*
- ◇ Epoxy DPM**
- ◇ Existing Adhesive Residues
- ◇ Green Screed
- ◇ Cement/Sand Render
- ◇ Concrete Brick/Block
- ◇ Fibreglass

Suitable | **Not suitable**

* Prime with PR

** If DPM is more than 24 hours prime with PR

SUBSTRATE PREPARATION GUIDE

Most substrates do not require priming prior to the application of Python HF. Priming the substrate however will minimize the risk of pinholes forming, allow for the best flow properties and also prolong the working time of the product. Priming the substrate prior to application whilst not necessary, is considered “best practice”. Where priming is necessary, prime the substrate using Python PR by following the instructions on the Primer packaging.

Pre-Smoothing: Python HF can be used to pre-smooth a cement based floor with a residual moisture reading of >75% RH prior to the installation of an Epoxy DPM. 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.

NB: Pre-smoothing is not recommended over old adhesive residues, these need to be fully removed to leave the original substrate prior to application.

Concrete: New concrete must be allowed a minimum of 6 weeks drying time. As an approximate guide for drying times, allow 1 day per mm up to an overall depth of 50mm and 2 days per mm for anything above 50mm. Ensure new concrete is confirmed dry via consistent moisture readings across the whole surface. Concrete screeds must have a reading of less than 75% relative humidity (RH) before work can commence. 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.

Sand/Cement Screed: New sand/cement screed must be left for a minimum of 4 weeks to dry sufficiently. Ensure new sand/cement screed is confirmed dry via consistent moisture readings across the whole surface. Sand/cement screeds must have a reading of less than 75% relative humidity (RH) before work can commence. 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.

Flooring Grade Asphalt/Bitumen: Prior to applying Python HF ensure that the flooring grade asphalt/bitumen is in good condition and that there are no signs of debonding 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 and allow to dry.

Existing Ceramic, Porcelain & Natural Stone Tiles: Prior to applying Python HF ensure the surface is dry and free of any contaminants, loose dust or dirt. Existing tiles that have been previously treated with sealer must be sufficiently cleaned in order to remove any surface treatments.

Underfloor Heated Screeds should be commissioned prior to tiling or applying a soft flooring finish. 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 applying the flooring finish to allow the substrate to cool sufficiently. Alternatively in cold conditions, reduce the temperature of the screed to below 15°C.

Once the self levelling and the flooring installation has been completed allow 1 week for full cure of FL 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.

Anhydrite/Gypsum Screed: Anhydrite/Gypsum screeds must be confirmed dry via consistent moisture readings across the whole floor. The residual moisture content of the screed must be less than 0.5%. Alternatively the relative humidity must be 75% or below. 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 in order to remove the laitance from the surface of the screed.

For details on self levelling anhydrite/gypsum screeds with FL, please contact the Technical Helpline on 020 8778 9000.

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

Existing Vinyl Tiles/Sheet Vinyl: Prior to applying Python HF, 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 and 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 + Grip and allow to dry.

Power Floated Concrete: Ensure the surface has been allowed 7 days to cure. Ensure new concrete is confirmed dry via consistent moisture readings across the whole surface. Concrete screeds must have a reading of less than 75% relative humidity (RH) before work can commence. 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.

Epoxy Damp Proof Membrane: Ensure the surface is dry and free of any contaminants, loose dust or dirt. Within 24 hours of a fast one coat DPM being applied, Python HF can be applied directly to the surface of the DPM without the need to prime. If 24 hours has elapsed since the application of the Epoxy DPM, prime the surface with one coat of Python PR and allow to dry.

HEALTH AND SAFETY

Python HF 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	
Screed classification	CT-C16-F7 to EN13813:2002
Working time @ 20°C	20 - 25 minutes
Time to foot traffic @ 20°C	90 minutes
Application thickness	2 - 12 mm
Compressive strength N/mm² (BS EN 13892-2)	1 day > 9.0 7 day > 12.0 28 day > 16.0
Flexural strength 4.0 N/mm² (BS EN 13892-2)	1 day > 3.0 7 day > 4.0 28 day > 7.0
Coverage	A 20kg bag and 5.0Ltr liquid unit will cover 5.0m ² at 3mm thickness
Flow properties using 30mm x 50mm flow ring	135 – 150 mm
Minimum application temperature	5°C
Shelf life	Stored correctly this product has a shelf life of 6 months
Colour	Powder - Grey Liquid - White
Pack size	Bag 20kg Liquid 5 Litres
Note	All work must be carried out in accordance with British Standard Code of Practice.



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EN 13813:2002 CT-C16-F7 | Cementitious screed material for use internally in buildings

Reaction to fire	NPD
Release of corrosive substances	CT
Water permeability	NPD
Water vapour permeability	NPD
Compressive strength	C16
Flexural strength	F7
Wear resistance	NPD
Sound insulation	NPD
Sound absorption	NPD
Thermal resistance	NPD
Chemical resistance	NPD