

Pumadur HF

Heavy duty polyurethane resin floor screed for brewery flooring

Industrial Floor Treatments (Stone) Ltd

Unit 7, Emerald Way, Stone Business Park

Stone, Staffordshire, ST15 0SR

Tel: 01785 819800 Fax: 01785 816767

enquiries@iftstone.co.uk www.iftstone.co.uk



Resin Development



Brewery Floor - Installed by IFT

Description

Pumadur HF is a heavy duty, trowel applied polyurethane floor screed for use on concrete and polymer modified cementitious screeds. **Pumadur HF** is designed with the highest order of durability, impact, abrasion and chemical resistance. Its lightly textured finish makes the product ideal for both wet and dry processing environments such as the food, brewery, distilling, beverage and chemical industries.

Category

Type 8 screed (BS 8204-6)

Appearance

Seamless, matt surface with a light slip resistant texture.

Pumadur HF contains a white aggregate that imparts a slip resistant profile to the finished floor. When first installed, the floor has a uniform coloured surface. However, with general use, the white aggregate will begin to show through giving a decorative, mottled appearance.

Features & Benefits

- At a thickness of 9mm **Pumadur HF** is stable to spillages and discharges up to 120°C and is fully steam cleanable. At 6mm these operating temperatures are reduced.
- Very high chemical resistance.
- Non-tainting.
- Seamless.
- High abrasion resistance.
- Slip resistant.

Thickness

6 – 9 mm

Non-tainting

Pumadur HF is water based and non-tainting (Campden & Chorleywood Food Research Association test method TES-S-002).

Chemical Resistance

Pumadur HF is resistant to a wide range of commonly used chemicals in the food, dairy and pharmaceutical industries such as concentrated citric acid (fruits), spirit vinegar (50% acetic acid), lactic acid (food & dairy products) and common alcohols (methanol & ethanol).

Pumadur HF is resistant to a wide range of inorganic acids, fuels, hydraulic oils, mineral oils and solvents. Good housekeeping practices should be employed. Please consult our Technical Department for further advice.

Temperature Resistance

When applied at 9 mm **Pumadur HF** is resistant to spillages and discharges up to 120°C and is fully steam cleanable. Where thermal shock is an issue, a good quality substrate is essential. At 6mm these operating temperatures are reduced.

The typical physical properties given above are derived from testing in a controlled laboratory environment. Results derived from testing field-applied samples may vary dependent upon site conditions. The slip resistance figures given above are affected by application techniques and prevailing site conditions. Slip resistance can reduce over time due to poor maintenance, general wear or surface contaminants. Good housekeeping practices should be observed.

Resdev Limited

Pumaflor House, Ainleys Industrial Estate
Elland, West Yorkshire, HX5 9JP,
England Tel: +44 (0) 1422 379131
fax: +44 (0) 1422 370943
info@resdev.co.uk
www.resdev.co.uk



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Cure Schedule at 20 °C

Working life of full packs * 15 minutes

* Usable working life of material following mixing and immediate spreading as per the application instructions.

Finished floor *

Cure time to light pedestrian traffic 12 hours

Cure time to light wheeled traffic 24 hours

Cure time to heavy duty traffic 48 hours

Full chemical resistance 7 days

* The above cure times are approximate and given as a guide only. These times can vary due to prevailing site conditions.

Pack Size

29.64 kg

Coverage*

12 kg/m² at 6 mm or 18 kg/m² at 9 mm

* Coverage figures given are theoretical. Practical coverage rates may vary due to wastage factors and the type, condition, profile and porosity of the substrate.

Colours

Pumadur HF is available in a range of standard colours. **Pumadur HF** is not colour fast and may yellow over time. The rate of change will depend on UV light and heat levels and cannot be predicted. This will be more pronounced with lighter colours and blue shades and does not compromise the product's performance or chemical resistance characteristics.

Application Conditions

Ideal ambient and substrate temperature range is 15 - 25°C. Localised heating or cooling equipment may be required outside this range to achieve ideal temperature conditions. The aggregate can be stored in a cool area (or warm area in the case of low ambient temperature) in order to control product temperature and working life. The substrate and uncured floor must be kept at least 3 °C above the dew point to reduce the risk of condensation or blooming on the surface, from before priming to at least 48 hours after application.

Surface Preparation

Inadequate preparation will lead to loss of adhesion and failure. Grinding, light vacuum-contained shot-blasting or planing is recommended. Percussive scabbling or acid etching is not recommended. Anchorage grooves should be cut to a width and depth of twice the thickness of the floor finish at the edges, bay joints, up-stands, drains, doorways and at regular points across the floor, and all debris removed. Refer to the **Resdev Guide to Surface Preparation** for further information.

Application Instructions

Priming

(i) Where the concrete substrate has a relative humidity of <75%

Priming should be carried out using **Pumadur Primer** taking particular care to prime but not fill the anchor grooves (see separate data sheet). Spread onto the substrate and roll with a short-haired roller to ensure even coverage until the surface is completely wetted out, taking care to avoid pooling. Apply around the edges of and into anchorage grooves by brush, to allow even spreading and avoid pooling. If, when cured, there are dry patches, a further primer coat is required. Allow to cure for a minimum 12 hours at 20 °C. If the primer has been left to cure for >48 hours then the primer surface should be mechanically abraded and the area re-primed. Failure to do so may result in pin-holing of the surface topping.

(ii) Where the concrete substrate has a relative humidity of >75%

Pumadur HF can be applied to 7 day old concrete which is visibly dry and having a minimum tensile strength (pull-off) of 1.5 MPa. All of the usual stringent surface preparation techniques should be employed. For concrete bases in contact with the ground, a damp proof membrane should have been incorporated into the slab design, in accordance with the requirements of CP102 (Code of Practice for Protection of Buildings Against Water from the Ground).

Pumadur TF should be applied as a primer coat. Apply using a medium nap roller directly from a paint tray or scuttle. Push the coating well into the surface, make sure it is fully wetted out then pull back to a tight coat with the roller. Apply around the edges of and into anchorage grooves by brush, to allow even spreading and avoid pooling. If, when cured, there are dry patches, a further primer coat is required. Allow to cure for a minimum 12 hours at 20°C. If the primer has been left to cure for >48 hours then the primer surface should be mechanically abraded and the area re-primed. Failure to do so may result in pin-holing of the surface topping.

Application of Pumadur HF

Prior to mixing, the temperature of the three components must be between 15 and 25°C. Pre-mix the coloured resin component before use. Add the hardener component to the coloured resin component and mix using a low speed electric mixer (300 - 400 rpm) for 1 - 2 minutes until homogeneous. Decant the mixture into a rotary drum mixer and add the aggregate component in stages, mixing for a minimum of 3 minutes until a uniform coloured, lump-free mix is obtained. Apply to primed areas to the required thickness using a steel float. Ensure that anchor grooves are fully wetted out with material. The cured product should be protected from other trades using Kraft paper or similar breathable material. Polythene should not be used. Protect the installed floor from damp, condensation and water for at least 4 days.

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Cleaning

Regular cleaning is essential to enhance and maintain the life expectancy, slip resistance and appearance of the floor. **Pumadur HF** can be easily cleaned using industry standard cleaning chemicals and techniques. Consult your cleaning chemical and equipment supplier for more information. When applied at 9 mm thickness, **Pumadur HF** is fully steam cleanable.

Health and Safety

Refer to product Safety Data Sheet before use.

EU Directive 2004/42/EC

Complies with category j type SB (< 500 g/l). The VOC content of **Pumadur HF** is approx. 9 g/l (theoretical).

Storage

Store off the ground in un-opened packs in a dry store, under cover between 10°C and 30°C out of direct sunlight. Protect from frost.

Shelf Life

Resin and hardener components 12 months
Aggregate component 6 months

* If stored in accordance with the above recommendations.

Limitations


Do not proceed with application if atmospheric relative humidity is, or is anticipated to be, >90% or if the surface temperature is <3 °C above the dew point. Application should not commence when the substrate temperature or the ambient temperature is, or is anticipated to be <5°C during the application or within the curing period. The design strength of concrete surfaces must be a minimum of 25 MPa compressive strength at 28 days. The manufacture of **Pumadur HF** is a batch process and despite close manufacturing tolerances, colour variation may occur between batches. Products from different batches should not be used on the same surface or surfaces close together. If mixed batches are unavoidable, it is best practice to use the different batches only in areas where the colour cannot be directly compared. Touching up should only be attempted using product from the same batch using the same application methods. Product should be reserved specially for this purpose. It is recommended that touching up is carried out up to a break in the floor or surface.

Technical Advice

For further information on this or any other Resdev product, please contact our office.

Note

The information contained in this document, and all further technical advice given is based on our present knowledge and experience. However, it implies no liability or legal responsibility on our part. In particular, no warranty or guarantee of product performance in the legal sense is intended or implied as the conditions of use and the competence of any labour involved in the application are beyond our control. Properties listed are for guidance purposes only. We reserve the right to make any changes according to technological progress or further developments.

Resdev Limited, Pumaflor House, Ainleys Industrial Estate Elland, West Yorkshire, HX5 9JP, England			
		13	DOP RV0059
EN 13813 SR-B2,0-AR0,5-IR20 Synthetic resin screed material for use internally in buildings not subject to reaction to fire regulations			
Reaction to fire	NPD	Impact resistance	IR20
Release of corrosive substances	SR	Sound insulation	NPD
Water permeability	NPD	Sound absorption	NPD
Wear resistance	AR0,5	Thermal resistance	NPD
Bond strength	B2,0	Chemical resistance	NPD

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