

Pumathane SL

Flow-applied flexible polyurethane floor topping



Description

Pumathane SL is a three-component polyurethane flow-applied flexible floor topping with a semi-gloss finish.

Applications

Pumathane SL is suitable for the protection of concrete floors subject to medium duty traffic (regular foot traffic, occasional fork lift truck traffic, occasional hard plastic-wheeled trolleys). **Pumathane SL** can be applied to concrete, polymer modified sand/cement screeds, steel, timber and some asphaltic surfaces.

Features & Benefits

- Low odour
- Hardwearing, tough and resilient
- Seamless
- Hygienic / easy to clean and maintain

Thickness

2.5 - 4 mm

Temperature Resistance

Pumathane SL is resistant to occasional spillages up to 40°C.

Typical Properties, 7 days at 23 °C

BS 8204-6 Type 5
Density 1.85 g/cm³

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. Any 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.

Cure Schedule at 20 °C*

Working time	20 minutes
Cure time to light pedestrian traffic	16 hours
Cure time to heavy duty traffic	48 hours
Full chemical resistance	7 days
Slip resistance (BS 7976-2) :	
Four-S rubber (dry)	75
TRL rubber (dry)	80

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

Pack Size

29.65 kg

Coverage*

2.5 mm @ 4.5 kg/m²

4 mm @ 7.4 kg/m²

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

Application Conditions

The ideal ambient, substrate and material temperature range is 15 - 25 °C. Localised heating or cooling equipment may be required outside this range otherwise the surface finish may be impaired. The maximum atmospheric relative humidity should be 75%. 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. Dust settlement from trades in adjacent areas can impair the visual appearance of the finish.

Surface Preparation

Inadequate preparation will lead to loss of adhesion and failure. In flow-applied systems, there is a tendency for the finish to mirror imperfections in the substrate. Grinding or light vacuum contained shot-blasting is therefore preferred over planning for these systems. For the best appearance, the substrate should be finished to a surface regularity when tested according to BS 8204-1 of class SR1 otherwise a scratch coat may be required. Fix metal edging strips to protect free edges of the resin flooring. All live movement joints in the substrate must be carried through the resin floor finish. When applying to timber floors, apply a 1 mm scratch coat primer to fill and level all joints, screw heads and other imperfections. Refer to the **Resdev Guide to Surface Preparation**.

New concrete floors

The base should be a minimum of Grade RC30 of BS 8500-2: 2002 and should not contain a water repellent admixture. The surface strength when assessed using a rebound hammer should be above 25 or the surface tensile strength should exceed 1.5 MPa. The laitance and any surface sealer or curing membrane should be removed by mechanical means to expose the coarse aggregate. After surface preparation, all loose debris and dirt should be removed by vacuum equipment. 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).

Resdev Limited

Pumafloor 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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Old concrete floors

All laitance and surface contamination, e.g. oil, paint and rubber, should be removed by mechanical means to expose the coarse aggregate. After surface preparation, all loose debris and dirt should be removed by vacuum equipment. A close visual examination should be made to verify cleanliness and soundness. Any weak or suspect areas should be repaired.

Heavy oil or grease deposits should first be removed either mechanically, by steam cleaning, or by biological treatment, then by high pressure water blasting followed by the application of **Pumaprime OCS** (see separate data sheet).

Where oil or grease contamination has been severe or of long duration, none of these methods may prove satisfactory and in these cases removal of the affected base would be necessary. In existing buildings without a functioning damp-proof membrane, the application of **Pumaprime DPM** should be considered.

Hydrostatic pressure may, under certain circumstances, cause adhesive failure between the flooring and the substrate. Where this is likely to occur, such as in areas where the ground water table is higher than the substrate, and where external tanking has not been applied, pressure relief must be provided e.g. by direct drainage.

Priming

Substrate relative humidity <75%: **Pumadur Primer**
Substrate relative humidity >75%: **Pumaprime DPM**

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

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 (200 - 500 rpm) for 1 - 2 minutes until homogeneous. Decant the mixture into a suitable mixing vessel and gradually add the aggregate component whilst continuing the mixing action. When all the aggregate has been added, mix for a minimum of 3 minutes until a uniform coloured, lump-free mix is obtained. Care should be taken to ensure that any material adhering to the sides, bottom and corners of the mixer is thoroughly blended in. Unduly extended or vigorous mixing should be avoided in order to minimize air entrainment. Distribute the mixture immediately onto the surface using a steel float or pin rake and spike roller thoroughly within 5 minutes to remove trapped air. Plan the work area to ensure a constant wet edge and work within the working time of the material. **Pumathane SL** reacts with water

causing foaming. During application take care that no sweat drops fall into the uncured material. Wear head and wrist bands during application.

Colours Available

Pumathane SL is not colour fast and may yellow over time. This will be more pronounced with lighter colours and blue shades and does not compromise the product's performance or chemical resistance characteristics. The application of **Pumadur DD Coloured** (gloss, silk or matt) at a rate of is recommended where a UV stable finish is required. **Pumathane SL** should be re-coated between and 8 and 48 hours after application (at 23°C).

Cleaning

Suitable trap mats should be installed at external entrances. Regular cleaning is essential to enhance and maintain the life expectancy and appearance of the floor. **Pumathane SL** can be easily cleaned using industry standard cleaning chemicals and techniques. Consult your cleaning chemical and equipment supplier for more information. The use of a high solids acrylic polish can help maintain the condition of the floor.

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 VOC content).

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.

Technical Advice

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

Limitations

Do not proceed with application if atmospheric relative humidity is, or is anticipated to be, >75% or if the atmospheric or 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, <10 °C during the application or within the curing period. The manufacture of **Pumathane SL** 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.

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

Pumafloor House, Ainleys Industrial Estate
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CE		13	DOP RV0072
EN 13813 SR-B2,0-AR1,0-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	AR1,0	Thermal resistance	NPD
Bond strength	B2,0	Chemical resistance	NPD

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