

# Pumadur MD



## Product Description:

**Pumadur MD** is a medium-duty, flow applied, polyurethane floor topping for use on concrete and polymer modified cementitious screeds. **Pumadur MD** is designed with the highest order of durability, impact, abrasion and chemical resistance.

Its easy to clean, smooth matt finish makes the product ideal for processing environments such as the food, beverage and chemical industries.

## Appearance:

Seamless, smooth, matt finish.

## Features & Benefits:

- Flow applied.
- High chemical resistance.
- Non-tainting.
- Seamless.
- High abrasion resistance.

## Thickness:

4.0 mm - 6.0 mm.

## Chemical Resistance:

**Pumadur MD** 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 MD** is also 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.

## Health & Safety:

Refer to product Safety Data Sheet before use.

## 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. Grinding, or light vacuum-contained shot-blasting is therefore preferred over planning for these systems. Percussive scabbling or acid etching is not recommended. The substrate should be finished to BS 8204-1 of class SR1 otherwise a scratch coat will be required. Anchorage grooves should be cut to a width and depth of twice the thickness of the floor finish up to a maximum of 8.0 mm at the edges, bay joints, up-stands, drains, doorways, and at regular points across the floor and all debris should be removed. Refer to the Resdev Guide to Surface Preparation for further information.



## Technical Advice:

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

## Application Conditions:

Optimum substrate temperature range is 15 - 25 °C. Localised heating (electric powered warm air blower) 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.

## Priming:

It is recommended that the substrate is primed prior to application of **Pumadur MD**. The choice of primer is dependent on substrate and environmental conditions. In some instances a scratch coat may be the preferred method.

## Application:

**Pumadur MD** 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 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).

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.

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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. Apply the mixture immediately onto pre-primed areas and level to the required thickness using a steel float. De-aerate thoroughly using a spiked roller. Spike rolling should be carried out within three minutes of application in order to avoid interfering with flow and surface finish. 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.

## Cleaning:

Regular cleaning is essential to enhance and maintain the life expectancy, slip resistance and appearance of the floor. **Pumadur MD** can be easily cleaned using industry standard cleaning chemicals and techniques. Consult your cleaning chemical and equipment supplier for more information.

## EU Directive 2004/42/EC:

Complies with category j type SB (< 500 g/l). The VOC content of **Pumadur MD** is approx. 12 g/l (theoretical).

**Pumadur** systems are 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 on lighter colours but does not affect the performance of the product.

## Available Colours:

Please see price list for available colours.

**Pumadur MD** 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.

## Limitations:

Do not proceed with application if atmospheric relative humidity is, or is anticipated to be, >85% 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 <10 °C during the application or within the curing period. The design strength of concrete surfaces must be a minimum of 25 N/mm<sup>2</sup> compressive strength at 28 days.

The manufacture of **Pumadur MD** 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.

PRODUCT INFORMATION	
Chemical Type	Water Based Cementitious Polyurethane
Packaging	<b>30.10kg Unit:</b> Resin: 4.00kg Hardener: 3.30kg Aggregate: 22.80kg
Shelf life	Resin & Hardener: 12 Months Aggregate: 6 Months
Storage conditions	<b>Pumadur MD</b> must be stored off the ground in original packaging, unopened and undamaged. The ambient conditions must be dry and between 10°C and 30°C with no direct sunlight. Protect from frost.

APPLICATION INFORMATION	
Mixing Ratio	MIX FULL UNITS
Consumption	7.6 kg per m <sup>2</sup> at 4.0 mm.      11.4 kg per m <sup>2</sup> at 6.0 mm.
Environmental Conditions	Air Temp                      +15°C to 25°C Relative air humidity      <85% Dew Point                    >3°C above
Substrate Temperature	+15°C to 25°C
Substrate Moisture Content	No ponding water Substrate relative humidity (RH): <75% Concrete must have a tensile strength: >1.5 N/mm <sup>2</sup>
Pot life (approx.)	+10°C                      20 to 30 minutes +20°C                      15 to 20 minutes +30°C                      10 to 13 minutes
Curing Schedule 20°C	Light Pedestrian Traffic      Above 12 hours Light Wheeled Traffic        Above 24 hours Heavy Duty Traffic            Above 48 hours Full Chemical Resistance    7 days
Service Conditions	<b>Pumadur MD</b> is cleanable up to 60°C, once fully cured.

TECHNICAL INFORMATION *	
Adhesive strength to concrete	BS EN 13892-8                      >2.0 N/mm <sup>2</sup>
FeRFA Floor Type	BS 8204-6                              Type 7
Abrasion Resistance	BS EN 13892-4                      AR 0.5
Impact Resistance	BS EN ISO 6272-1                    20.0 Nm
Shore D Hardness	75
Slip Resistance	Pendulum Test BS 7976-2        > 60 Dry

\*The typical physical properties given above are derived from testing in a controlled laboratory environment. In the field results may vary due to site conditions.

## APPROVALS & STANDARDS

Synthetic Resin Screed material according to EN 13813:2002

**Pumadur MD** is a non-tainting product in accordance with test method TES-S-002 performed by Camden Food Research

Eurofins Indoor Air Quality GOLD certified

Note: The information contained in this document, and all further technical advice is given 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 is beyond our control. Properties listed are for guidance purposed only. We reserve the right to make any changes according to technological progress or further developments.

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CE		13	DOP RV0001
<b>EN 13813 SR-B2,0-AR0,5-IR20</b> <b>Synthetic resin screed material for use internally in buildings</b> <b>not subject to reaction to fire regulations</b>			
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