Specialist Construction Supplies for Repair, Maintenance, Building & Infrastructure

# Pumaflow Data Sheet

**Specification notes**

Product: **Pumaflow**

Supplier:

**Arcon Construction Supplies**
**19-20 Prestwood Court**
**Leacroft Road**
**Warrington**
**WA3 6SB**

Tel: **01925 852225**

Email: **mail@arconsupplies.co.uk**

Web: **www.arconsupplies.co.uk**

# Pumaflow

Medium duty flow applied epoxy floor topping

Resin Development

## Description

**Pumaflow** is a medium duty flow applied epoxy floor topping for use on concrete and polymer modified cementitious screeds. **Pumaflow** is designed with the highest order of durability, impact, abrasion and chemical resistance. Its easy to clean, smooth, gloss finish makes the product ideal for environments such as the food, beverage, engineering and chemical industries. **Pumaflow** is ideal for clean rooms, retail showrooms, schools, hospitals and hotels.

## Appearance

Seamless, smooth, gloss finish. Synthetic resin flooring will generally follow the profile of the underlying substrate because of their method of application and their relatively low thickness. This should be discussed with the end user at the time of specification.

## Features & Benefits

- Flow applied - rapid installation
- Resistant to general chemical spillages
- Non-dusting
- Seamless
- High wear & abrasion resistance
- Easy to clean

## Thickness

2 – 3 mm

## Temperature Resistance

**Pumaflow** is resistant to cleaning up to 60°C.

## Typical Properties, 28 days at 20 ºC

| | |
|---|---|
| BS 8204-6 | Type 5 |
| Adhesion to concrete (BS EN 1504-2) (concrete failure) | > 1.5 MPa |
| Mixed density | 1.8 kg/litre |
| Shore D hardness | 72 |
| Slip Resistance (BS 7976-2) Dry | > 40 Low Slip Potential |

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.

## Cure Schedule at 20 ºC

| | |
|---|---|
| Working life of full packs * | 25 minutes |
| Finished floor * | |
| Cure time to light pedestrian traffic | 24 hours |
| Cure time to heavy duty traffic | 48 hours |
| Full chemical resistance | 7 days |

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

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

## Pack Size

30.5 kg

## Coverage*

3.6 kg/m$^2$ at 2 mm or 5.4 kg/m$^2$ at 3 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.

## Application Conditions

Ideal ambient and substrate temperature range is 15 - 25 ºC. 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 ºC 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. The surface strength of the concrete base or screed assessed using a rebound hammer in accordance with BS 1881-202 should be above 25 and the surface tensile strength should exceed 1.5 N/mm$^2$. An effective structural damp proof membrane should be present and the relative humidity at the surface no more than 75% when measured by the method of BS 8203. New concrete should be a minimum of Grade C35 with a minimum cement content of 300 kg/m$^3$ and should not contain a water repellent admixture.

## 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 planing for these systems. Percussive scabbling or acid etching is not recommended. The substrate should be finished to a surface regularity when tested according to BS 8204-1 of class SR1 otherwise a scratch coat will be required. Refer to the **Resdev Guide to Surface Preparation** for further information.

**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

**Application Instructions**

**Priming**

Priming should be carried out using **Pumaprime SF** at 5 - 8 $m^2$/kg depending on substrate porosity. Apply using a medium nap roller ensuring complete coverage and avoiding pooling. If, when cured, there are dry patches, a further primer coat is required. Allow to cure completely before proceeding. 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 Pumaflow**

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.

Apply the mixture immediately onto pre-primed areas , spread to the required thickness using a steel float then de-aerate using a spiked roller. Continue spiked rolling until air is released finishing well before the material begins to gel.

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 dust, traffic, damp, condensation and water for at least 24 hours or longer at colder temperatures.

**Cleaning**

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

**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**

Materials should be kept dry and stored in a weatherproof building maintained at 15 °C to 20 °C on pallets and away from walls. Consignments should be used in order of batch number. Protect from frost.

**Shelf Life** *

12 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, >80% or if the surface temperature is <3 ºC above the dew point. Application should not commence when the substrate temperature or the ambient temperature is, or is anticipated to be <5 ºC during the application or within the curing period. The manufacture of **Pumaflow** is a batch process and despite close manufacturing tolerances, minor variations in shade 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.

**Pumaflow** 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.

**Technical Advice**

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

**Note**



| Resdev Limited, Pumaflor House, Ainleys Industrial Estate Elland, West Yorkshire, HX5 9JP, England | | |
|---|---|---|
| CE | 13 | DOP RV0038 |
| EN 13813 SR-B2,0-AR1,0-IR14 Synthetic resin screed material for use internally in buildings not subject to reaction to fire regulations | | |

| | | | |
|---|---|---|---|
| Reaction to fire | NPD | Impact resistance | IR14 |
| 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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