

Pharmaceutical Electronics Paper Engineering Food

Automotive Water Aerospace Textile Brewing Retail Cosmetics Power Chemical Prison Defence Printing Warehousing Automotive Water Aerospace Textile Brewing Retail Cosmetics Power Chemical Prison

Industrial Resin Flooring Industrial Resin Flooring Industrial Resin Flooring

Chemical Aerospace Pharmaceutical

Industrial Resin Flooring Industrial Resin Flooring Industrial Resin Flooring Industrial Resin

Food processing

Automotive Water Aerospace Textile Engineering



Industrial Resin Flooring

Pharmaceutical Electronics Paper Engineering Food Kitchens Photographic Dairies Museums Bakeries

Industrial Resin Flooring Industrial Resin Flooring



The Future of Industrial Resin Flooring

Resdev Limited  
Pumaflor House  
Ainleys Industrial Estate  
Elland, West Yorkshire  
HX5 9JP England

tel: +44 (0) 1422 379131  
fax: +44 (0) 1422 370943  
e-mail: info@resdev.co.uk  
Web site: www.resdev.co.uk



In the challenging world of industrial resin flooring systems, Resdev Ltd enjoys a proven international reputation for quality, performance and innovation.

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# Resdev

## Building the Future for

# Industrial



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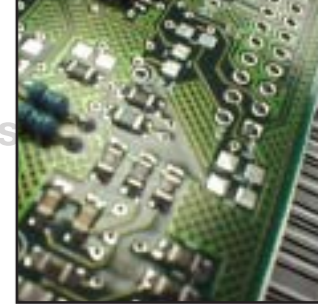
Resdev built its corporate reputation on substantial investment in R&D, backed up by the development of tough and resilient resin flooring products designed to meet the real needs of the industrial market.

Today's Resdev flooring range is one of the most comprehensive in the world. From simple floor seals through to heavy duty flooring systems, utilising both epoxy and polyurethane formulations to provide optimum choice of finish for customers, the Resdev name is the undisputed hallmark of excellence.

From its early origins back in the 1960s, Resdev adopted a research-based philosophy for its commercial activities. Today, with over four decades of product development expertise backed up by applications in industries across the globe, Resdev remains

Industrial Resin Flooring Industrial Resin Flooring

Pumatect Plus Pumadur HB Pumaflex 500 Pumaflex 500 Plus



## Optimum Performance in Use

Experience has shown us that each and every application and requirement is different, dependent upon environment and proposed duty.

To ensure optimum performance of Resdev products in every instance, the company has opened up the resources of its Technical Centre to customers nationwide, giving Resdev customers direct access to specialists with expert knowledge of the performance characteristics of Resdev products.

The primary role of the Technical Centre is to ensure that for every application, the correct product is selected in line with project assessments.

Such decisions and recommendations are supported by tests carried out in our in-house laboratory, designed to determine the suitability of selected products for specified environments.

Contact the **Helpline** on: **01422 379131**

## Technical consultation

### The FeRFA Quality Promise

Technical data covering each of the eight FeRFA types of resin flooring are available on request from Resdev. In order to adhere to the FeRFA Guide and to the relevant British Standards, specialist consultation covering product, application and environment must take place before specifications can be established.

Resdev personnel and approved contractors are available to carry out detailed site surveys and prepare professional recommendations in line with this drive for quality and performance.

In support of this quality initiative, Resdev products are only installed by a network of authorised applicators, trained in the use and application of these specialist materials.

[www.resdev.co.uk](http://www.resdev.co.uk)  
[info@resdev.co.uk](mailto:info@resdev.co.uk)

01422 379131





Pumashield Pumatect

### Joints

In order to align with base concrete slab movement joints, for the perimeter of stainless steel drainage systems and for aesthetic day joints on large projects, Resdev uses a range of compounds to form joints with a high degree of flexibility to accommodate movement.

### Wall & Specialist Coatings

Alongside its mainstream flooring products, Resdev has utilised its research into resin technology to develop a range of complementary systems. These include:-

- Solvent free vertical coatings, available as both epoxies and polyurethanes and designed for a comprehensive range of wall, coving, tanking and similar areas

Pumaseal PC DD PT P2

# Ancillary products

Ensuring a lasting finish for resin flooring may necessitate the use of ancillary products in order to create a professional and hygienic end result. Resdev manufactures a range of associated products developed alongside its resin flooring range, designed to produce a perfect finish.

### Coved Skirtings

Producing a smooth transition from floor to wall, the installation of coved skirting facilitates ease of cleaning. Resdev produces coving compounds compatible with its entire range of flooring systems in Types 4-8.

- Grades complying with BS 6920 for potable water applications
- Anti-corrosive coatings for steelwork
- Pitch modified coatings for external waterproofing
- Ultra-violet resistant paints in gloss, silk and matt finishes, available in clear or coloured formulations

### Maintenance Products

To complement the product range, Resdev offers a selection of purpose-designed maintenance systems, intended for:-

- Crack repair
- Binding weak substrates
- Filling holes in damaged resin floors
- Mending joints
- Industrial adhesives
- Polymer cement modifiers

Pumacoat WD Pumaguard SFD Pumantista

Pumascreed Pumafloor Pumadur SL Pumantistat SL Pumagrip Plus Pumagrip HD



Industrial Resin Flooring

# Resin Flooring

Pharmaceutical Electronics Paper Engineering Food

Industrial Resin Flooring Industrial Resin Flooring Industrial Resin Flooring Industrial Resin

the guiding force behind many of the industry's key technological advances.

These innovations have resulted in the development of a new generation of high performance resin flooring systems, now installed worldwide.

The Technical Services Department plays a key role in training teams of approved contractors to the highest standards of excellence, including site supervision for new and existing contractors, product advice and individual product formulation to meet specific user requirements.

Kitchens Photographic Dairies Museums Bakeries

## Resdev: Your Guarantee of Product Quality

Over the years, Resdev has invested heavily in its Technical Services Department, providing qualified and expert assistance to both approved contractors and customers worldwide.

Advanced customer support extends to include unrivalled availability of product, utilising Resdev's flexible manufacturing processes to have materials on site within 24 hours of order, where required.

## Resdev: The Industry Standard for Resin Flooring Systems

Type 3  
Type 2  
Type 1

Pumashield

Pumatect

Pumatect Plus

Pumadur HB

Pumaflex 500

Pumaflex 500 Plus

Pumacoat WD

Pumaguard SFS

Pumantistat SFS

Pumadur TF

Pumaseal PC DD P1 P2



Pumadur Pumaflex Pumadur Pumaflex

# The Puma Brands and seals

Chemical

Resdev produces a comprehensive range of high performance resin flooring systems, utilising both epoxy and polyurethane formulations.

## Pumaflex the hardwearing epoxies

Pumaflex epoxy resin products represent an established industry standard for resin flooring, offering an extremely resilient option ideal for applications subject to abrasion or impact. Used extensively in general industrial and heavy engineering applications, Pumaflex provides durable solutions and excellent tolerance to chemical spillage.

## Pumadur the high performance polyurethanes

Pumadur polyurethane resin products are recommended for applications where wet processes are carried out or frequent high temperature cleaning is undertaken. Pumadur systems offer tangible advantages for the food, drink, chemical and pharmaceutical industries, providing a totally impervious surface resistant to chemical spillage, high temperatures and aggressive cleaning.

The Pumaflex and Pumadur brand names encompass a selection of products, ranging from floor seals through to heavy duty flow applied systems, for applications ranging from factories and warehouses through to clean rooms and galleries. All options guarantee an attractive, seamless, easily cleaned and hygienic finish, which will not support microbial growth.

## Type 1 Floor seal

Applied in two coats to give a dry film thickness of up to 150 microns, and generally solvent or water borne.

These low cost floor seals containing solvent are designed to penetrate the concrete substrate, giving additional strength and providing a tough, durable surface film. Available as clear options or in a range of attractive colours, these polyurethane seals are used to dustproof and enhance the appearance of concrete for applications

including warehouses, garden centres, storage rooms and light traffic areas. Overcoating may prove necessary after two to three years in areas subject to heavier traffic.

### The Resdev Solutions

All Resdev products developed for use as floor seals are polyurethanes, easily and swiftly applied using rollers. These include Pumaseal PC, Pumaseal DD, Pumaseal P1 and Pumaseal P2.

Photographic Reprographic Print Aircraft Hangers Warehouses Boiler Rooms Pharmaceuticals

Pumaflex 500 Pumaflex 500 Plus

Pumadur TF Pumaseal PC DD P1 P2

Chemical resistant Aggressive cleaning High temperatures



12

## Type 3 High build floor coating

Applied in two or more coats to give a final thickness of 300 to 1000 microns, and generally solvent free.

These high build coatings provide three to five times greater thicknesses than Type 1 and Type 2 products, and are ideally suited to areas subject to continuous foot and light wheeled traffic. Type 3 products are, however, relatively thin coatings and may be damaged by impact. For this reason, they are not recommended for areas requiring chemical resistance. When specified correctly for light traffic areas, these

products have a life expectancy of at least ten years. In areas subject to heavier wear, they may be readily refurbished with the application of additional coats.

### The Resdev Solutions

Resdev products suitable for use in this category include Pumashield, Pumatect and Pumatect Plus epoxy options, with Pumadur HB, Pumaflex 500 and Pumaflex 500 Plus providing the polyurethane alternatives. Typical applications include photographic and reprographic studios, printing plants, vegetable packers and other similar operations.

may be prohibited. They are primarily suited for light to medium traffic not subject to impact or other daily abuse.

These floor coatings are available in a range of attractive colours, designed to enhance the workplace and providing a dustproof surface which is easy to clean. Properly specified and applied only in areas subject to light traffic, a life span of five years is possible. In areas of heavier use, overcoating after two to three years may prove necessary.

### The Resdev Solutions

Resdev products developed for these applications include Pumacoat WD, Pumaguard SFS and Pumantistat SFS epoxy options, with Pumadur TF as the polyurethane alternative. These products are commonly used in areas such as aircraft hangars, garages, warehouses, pharmaceutical plants and boiler rooms.

## Type 2 Floor coating

Applied in two or more coats at a dry film thickness of up to 100 microns per coat and generally solvent free or water borne.

This category represents economically priced, solvent free floor coatings for use in areas where the solvent content of Type 1 products

Abrasion resilient High temperatures None taint Aggressive cleaning



## Pumadur and Pumafloor Formulated for Performance

Understanding the varied challenges and demands of differing manufacturing and commercial environments, Resdev has invested significant resources in the development of specific flooring formulations using Pumafloor and Pumadur epoxy and polyurethane resins to meet individual process requirements.

### Anti-Static Flooring

For sites where build up of static electricity could cause a risk of explosion or damage to sensitive electronics, Resdev provides a range of key floorings in an antistatic grade known as Pumantistat. Incorporating conductive components within the basic formulation, Pumantistat products perform in line with the requirements of BS 2050.

### Slip Resistant Flooring

All Pumafloor and Pumadur flooring systems provide standard levels of slip resistance. In wet areas or areas subject to spillage, individual formulations can promote added slip resistance for a safe, secure solution.

# Floor coatings by Resdev

resistant Slip resistant Impact resilient

### Chemically Resistant Flooring

Non-porous, impervious flooring surfaces created using Pumadur polyurethane resin systems provide particular resistance to chemical attack, and are widely used in environments subject to chemical spillage and arduous cleaning requirements.

### Non-Taint Flooring

All Resdev products used in proximity to foodstuffs are tested by the Campden & Chorleywood Food Research Association. Tests to ascertain absorption of water by the resin surface (potentially hazardous as could cause leaching of the constituents of the flooring) found no trace of absorption in Resdev products. In separate tests for taint and for volatile components, no contamination was found, and the products were judged impervious, non porous, washable and non-toxic.

### Flexible flooring

For areas such as mezzanines where the sub-floor may be subject to movement, a more flexible finish allows the floor to retain its integrity. Resdev's Pumaflex range incorporates a selection of flexible options, from floor seals through to flow-applied heavy duty floorings, with sufficient flexibility to accommodate movement in raised floorings or soft sub-floors, such as asphalt.

### Decorative floorings

In today's modern workplace, many high performance floorings must also offer improved levels of aesthetic appeal. The Resdev range incorporates a selection of decorative formulations, from basic flooring finishes incorporating coloured plastic flakes through to true and mock terrazzos, using epoxy or polyurethane resins.

Slip resistant None taint Impact resilient Abrasion resilient



Type 8 Type 7 Type 6 Type 5 Type

# Resin Floors - **achieving** multi layered

## A New Approach to the Specification of Resin Flooring

Adopting a responsible and professional approach to the resin flooring industry, Resdev was one of the founder members of FeRFA, the only trade organisation exclusively representing manufacturers and installers of resin floors. The association has a strong technical bias and continues to play a significant role in formulating policy and standards, both in the UK and in Europe.

FeRFA's key objective has always been to act as a guiding hand in the future development of the resin flooring industry. Faced with the profusion of products, systems and claims proliferating within the industry, FeRFA set out to produce a definitive means of identifying the best flooring for any particular application, and ensuring that it could be applied in the correct manner.

Mis-specification is one of the two main causes of resin floor failures, followed closely by poor surface preparation. FeRFA's original aim was to clarify the situation with the production of a comprehensive Guide for specifiers and installers. The task was bigger than it first seemed, and it soon became clear that what was needed was a comprehensive document dealing with all aspects of the specification and laying processes.

## Type 5 Flow applied flooring

Applied between 2mm and 3mm in thickness and often referred to as self-smoothing or self-levelling flooring: has a smooth surface or may be given a surface dressing.

These systems are similar to Type 7 products, but are designed primarily for less arduous duties in manufacturing environments such as textiles and car assembly lines. They are ideal for areas where a clean environment is required, and where there is substantial medium-weight traffic but few spillages.

These products do not form a particularly thick layer, and are therefore only resistant to moderate impact. However, their resistance to such maltreatment still far exceeds the performance of alternative materials such as concrete. Properly specified, these products should have a life span of at least ten years.

### The Resdev Solutions

Resdev products developed for this category of application include Pumaflow epoxy, available in standard, flexible and anti-static grades, as well as polyurethane options Pumadur SL and Pumantistat SL. These products have been widely specified for industries such as aeronautics, pharmaceuticals, general engineering and clean room applications.

Type 6  
Type 5  
Type 4

- Pumascreed
- Pumascreed PU
- Pumaflow
- Pumadur SL
- Pumantistat SL
- Pumagrip Plus
- Pumagrip HD

## Type 4 Multi-layer flooring

Multiple layers of floor coating for flow applied flooring with aggregate dressing, having a thickness greater than 2mm and often described as sandwich systems.

These sandwich systems offer good slip resistance when freshly installed, but are only suitable for areas subject to light pedestrian traffic as the grip aggregate does tend to wear off, with the surface becoming polished. They are basically Type 3 systems (High Build Floor Coatings), modified to give added slip resistance. For heavier duty applications, Type 6 or Type 8 products should be specified.

Type 4 products may be used in wet environments, but do not offer resistance to

the more aggressive chemicals. The base resin should provide a life expectancy of more than ten years, but the surface dressing may require renewal every three to five years. The profiled surface is not readily cleaned with a mop and bucket or similar techniques, and may require special cleaning machinery. With the advent of increasingly economical Type 8 products offering better slip resistance, the use of Type 4 products is decreasing.

### The Resdev Solutions

Resdev's Pumagrip Plus and Pumagrip HD offer both epoxy and polyurethane alternatives in multi-layer systems. Type 4 products are typically used on internal and external ramps, in transport garages and engineering workshops, chemical plants and water treatment works.

Type 8 Type 7 Type 6 Type 5 Type 4 Type 3 Type 2 Type 1

BS 8204 Part 6

Pumascreed Pumaflow Pumadur SL Pumantistat SL Pumagrip Plus Pumagrip HD  
Engineering Ramps Garages Chemical Water Treatment

# 4 Type 3 Type 2 Type 1

Resdev has played a significant role in developing the content and focus of the Guide, calling on four decades of product and application expertise to categorise and detail the different classes of product and their suitability for installation in a variety of working environments.

The end result is the FeRFA Guide - an authoritative document based on the content of BS 8204 Part 6, which is likely to set the tone not only in the UK but also much further afield because of the Association's input to forthcoming European legislation.



**BS 8204 Part 6**

# Screened, flow & leveling an accurate specification

## Type 6 Screed flooring

**Heavily filled trowel finished system applied at a thickness greater than 4mm, generally incorporating a surface seal coat to minimise porosity.**

Mainly based on epoxies, this type has evolved from the original floor repair compounds and is a heavily filled system which, because of its porosity, is better suited to dry environments. For use where occasional spillage may occur, a seal coat may be applied, but will need monitoring for wear. This type is extremely strong and resilient, with very good impact tolerance.

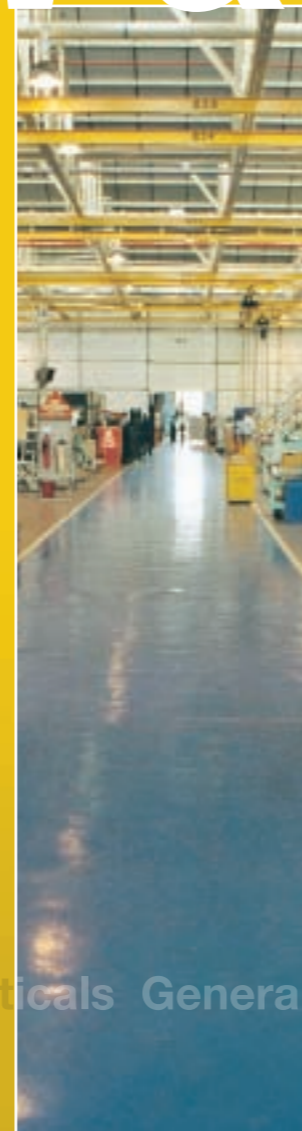
Because of this, they are recommended for applications more subject to mechanical abuse than chemical attack, such as heavy engineering. Type 6 products have a life expectancy of at least ten years. Seal coats may require replacing every two to three years, with this relatively inexpensive course of action returning the flooring to its original specification.

### The Resdev Solutions

*Pumascreed epoxy and Pumascreed PU polyurethane products provide a suitable solution for applications in this category. These products are frequently specified for paper mills, aerosol manufacturing, plastics factories and even police cells.*



Plastics Police Cells Textiles Aeronautics



## Categorisation of Floorings into FeRFA's Eight Types

Integral to the development of the Guide is the new classification of resin floorings into one of eight Types. This classification forms the backbone of FeRFA's aims to rationalise the diversity of product ranges within the industry.

Each of these eight Types represents a class of properties and durability of flooring finish. As such, the different types are appropriate for use in different applications, and it is therefore correct and informed selection which will form the cornerstone of accurate specifying.

## FeRFA's eight Types are classified as follows:-

Type 8 Type 7 Type 6 Type 5 Type 4 Type 3 Type 2 Type 1

- |        |                              |
|--------|------------------------------|
| Type 1 | Floor Seal                   |
| Type 2 | Floor Coating                |
| Type 3 | High Build Floor Coating     |
| Type 4 | Multi-Layer Flooring         |
| Type 5 | Flow-Applied Flooring        |
| Type 6 | Screed Flooring              |
| Type 7 | Heavy Duty Flowable Flooring |
| Type 8 | Heavy Duty Screed Flooring   |

Aerosols Pharmaceuticals General





## Type 8 Heavy duty screed flooring

Trowel finished, aggregate filled system, applied at a thickness of 6mm or more and effectively impervious throughout its structure.

Products in this category offer the highest level of durability available to date. They are generally laid at between 6mm and 9mm but exceptionally up to 12mm. A lifespan of 10 or more years may be expected in the toughest of environments. Being totally non-porous, they have the best chemical resistance of all resins and their surface profile confers slip resistance even in wet process areas. Cleaning is straightforward and their imperviousness means all types of methods and materials may be used.

Warehousing Automotive Museums

# Heavy duty flooring

Food Processing Pharmaceuticals Chemicals Abattoirs Bakeries Dairies Breweries Kitchens

These products are polyurethanes which, because of their relatively low viscosity compared with epoxies, can be trowel applied to produce a heavy duty, matt, anti-skid surface which is proof against almost everything, including steel wheeled traffic and substantial impact and abrasion. These products also tolerate steam cleaning when applied at thicknesses greater than 9mm.



In line with the FeRFA Guide, Resdev has reclassified its own product range, using the Type categories specified in order to simplify the specification process.

HF Pumadur RT Pumadur MD  
Food Processing

Pumadur MD Pumantistat MD Pumaflow 2500

Type 8  
Type 7

### The Resdev Solutions

Resdev's Pumadur VRT, Pumadur HF and Pumadur RT fall into this category, in both standard and anti-static forms. Typical applications are in industries such as food, pharmaceutical, chemical and other manufacturing sectors where spillages of corrosive or organic liquids occur, coupled with the requirement for frequent and thorough high temperature washing. Food processing plants, abattoirs, sausage factories, bakeries, dairies, breweries and kitchens number amongst the prime users. Even in these extreme conditions, a life span of ten years or even longer can be expected.

Pumadur VRT  
Pumadur HF  
Pumadur RT  
Pumadur MD  
Pumantistat MD  
Pumaflow 2500

## Type 7 Heavy duty flowable flooring

Aggregate filled and applied between 4mm and 6mm in thickness and having a smooth surface or given a surface dressing.

These products are less heavily filled than Type 8 flooring and provide a smooth surface which is more easily cleaned, although with a reduction in slip resistance in wet areas. These heavy duty formulations exhibit excellent chemical resistance and durability.

Polyurethanes give a matt smooth surface whereas epoxies offer a gloss surface. Suitable for use in areas subject to heavy wear but not constantly wet, they will withstand heavy traffic, steel wheels and a wide variety of general applications within the electronics, textiles and engineering fields.

### The Resdev Solutions

Resdev's Pumadur MD and Pumantistat MD are polyurethanes of this type, with Pumaflow 2500 providing an epoxy option. The two polyurethane products are widely used in the food, pharmaceutical and chemical industries, as well as a range of general applications within manufacturing industry.

Pumantistat MD Pumaflow 2500  
Pharmaceuticals Chemicals



Pharmaceutical Electronics Paper Engineering Food

Automotive Water Aerospace Textile Brewing Retail Cosmetics Power Chemical Prison Defence Printing Warehousing Automotive Water Aerospace Textile Brewing Retail Cosmetics Power Chemical Prison

Industrial Resin Flooring Industrial Resin Flooring Industrial Resin Flooring

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The Future of Industrial Resin Flooring

Resdev Limited  
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HX5 9JP England

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In the challenging world of industrial resin flooring systems, Resdev Ltd enjoys a proven international reputation for quality, performance and innovation.

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Pumadur Pumaflor Pumadur Pumaflor

Abrasion resilient High temperatures None taint Aggressive cleaning



## Pumadur and Pumaflor Formulated for Performance

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### Anti-Static Flooring

For sites where build up of static electricity could cause a risk of explosion or damage to sensitive electronics, Resdev provides a range of key floorings in an antistatic grade known as Pumantistat. Incorporating conductive components within the basic formulation, Pumantistat products perform in line with the requirements of BS 2050.

### Slip Resistant Flooring

All Pumaflor and Pumadur flooring systems provide standard levels of slip resistance. In wet areas or areas subject to spillage, individual formulations can promote added slip resistance for a safe, secure solution.

# The Puma Brands by Resdev

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## Pumaflor the hardwearing epoxies

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Chemical resistant Aggressive cleaning High temperatures Slip resistant None taint Impact resilient Abrasion resilient

Type 8 Type 7 Type 6 Type 5 Type 4 Type 3 Type 2 Type 1



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**BS 8204 Part 6**

# Resin Floors - achieving an accurate specification

## A New Approach to the Specification of Resin Flooring

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Type 8 Type 7 Type 6 Type 5 Type 4 Type 3 Type 2 Type 1

**BS 8204 Part 6**



**6**



## Type 8 Heavy duty screed flooring

Trowel finished, aggregate filled system, applied at a thickness of 6mm or more and effectively impervious throughout its structure.

Products in this category offer the highest level of durability available to date. They are generally laid at between 6mm and 9mm but exceptionally up to 12mm. A lifespan of 10 or more years may be expected in the toughest of environments. Being totally non-porous, they have the best chemical resistance of all resins and their surface profile confers slip resistance even in wet process areas. Cleaning is straightforward and their imperviousness means all types of methods and materials may be used.

Warehousing Automotive Museums

# Heavy duty flooring

Food Processing Pharmaceuticals Chemicals Abattoirs Bakeries Dairies Breweries Kitchens

These products are polyurethanes which, because of their relatively low viscosity compared with epoxies, can be trowel applied to produce a heavy duty, matt, anti-skid surface which is proof against almost everything, including steel wheeled traffic and substantial impact and abrasion. These products also tolerate steam cleaning when applied at thicknesses greater than 9mm.



In line with the FeRFA Guide, Resdev has reclassified its own product range, using the Type categories specified in order to simplify the specification process.

Pumadur HF Pumadur RT Pumadur MD  
Food Processing

Pumadur MD Pumantistat MD Pumaflow 2500

Type 8  
Type 7

### The Resdev Solutions

Resdev's Pumadur VRT, Pumadur HF and Pumadur RT fall into this category, in both standard and anti-static forms. Typical applications are in industries such as food, pharmaceutical, chemical and other manufacturing sectors where spillages of corrosive or organic liquids occur, coupled with the requirement for frequent and thorough high temperature washing. Food processing plants, abattoirs, sausage factories, bakeries, dairies, breweries and kitchens number amongst the prime users. Even in these extreme conditions, a life span of ten years or even longer can be expected.

Pumadur VRT

Pumadur HF

Pumadur RT

Pumadur MD

Pumantistat MD

Pumaflow 2500

## Type 7 Heavy duty flowable flooring

Aggregate filled and applied between 4mm and 6mm in thickness and having a smooth surface or given a surface dressing.

These products are less heavily filled than Type 8 flooring and provide a smooth surface which is more easily cleaned, although with a reduction in slip resistance in wet areas. These heavy duty formulations exhibit excellent chemical resistance and durability.

Polyurethanes give a matt smooth surface whereas epoxies offer a gloss surface. Suitable for use in areas subject to heavy wear but not constantly wet, they will withstand heavy traffic, steel wheels and a wide variety of general applications within the electronics, textiles and engineering fields.

### The Resdev Solutions

Resdev's Pumadur MD and Pumantistat MD are polyurethanes of this type, with Pumaflow 2500 providing an epoxy option. The two polyurethane products are widely used in the food, pharmaceutical and chemical industries, as well as a range of general applications within manufacturing industry.

Pumantistat MD Pumaflow 2500

Pharmaceuticals Chemicals



Pumaflow Pumadur SL



## Type 5 Flow applied flooring

Applied between 2mm and 3mm in thickness and often referred to as self-smoothing or self-levelling flooring: has a smooth surface or may be given a surface dressing.

These systems are similar to Type 7 products, but are designed primarily for less arduous duties in manufacturing environments such as textiles and car assembly lines. They are ideal for areas where a clean environment is required, and where there is substantial medium-weight traffic but few spillages.

These products do not form a particularly thick layer, and are therefore only resistant to moderate impact. However, their resistance to such maltreatment still far exceeds the performance of alternative materials such as concrete. Properly specified, these products should have a life span of at least ten years.

### The Resdev Solutions

Resdev products developed for this category of application include Pumaflow epoxy, available in standard, flexible and anti-static grades, as well as polyurethane options Pumadur SL and Pumantistat SL. These products have been widely specified for industries such as aeronautics, pharmaceuticals, general engineering and clean room applications.

Type 6  
Type 5  
Type 4

- Pumascreed
- Pumascreed PU
- Pumaflow
- Pumadur SL
- Pumantistat SL
- Pumagrip Plus
- Pumagrip HD

Plastics Police Cells Textiles Aeronautics

# Screed, flow & multi layered

## Type 6 Screed flooring

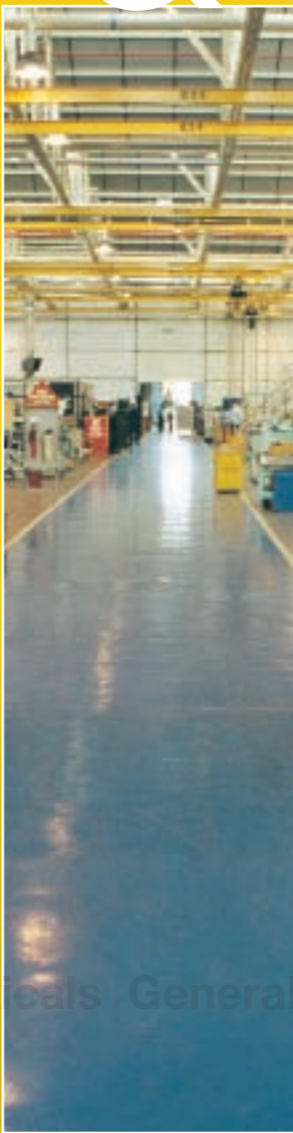
Heavily filled trowel finished system applied at a thickness greater than 4mm, generally incorporating a surface seal coat to minimise porosity.

Mainly based on epoxies, this type has evolved from the original floor repair compounds and is a heavily filled system which, because of its porosity, is better suited to dry environments. For use where occasional spillage may occur, a seal coat may be applied, but will need monitoring for wear. This type is extremely strong and resilient, with very good impact tolerance.

Because of this, they are recommended for applications more subject to mechanical abuse than chemical attack, such as heavy engineering. Type 6 products have a life expectancy of at least ten years. Seal coats may require replacing every two to three years, with this relatively inexpensive course of action returning the flooring to its original specification.

### The Resdev Solutions

Pumascreed epoxy and Pumascreed PU polyurethane products provide a suitable solution for applications in this category. These products are frequently specified for paper mills, aerosol manufacturing, plastics factories and even police cells.



## Type 4 Multi-layer flooring

Multiple layers of floor coating for flow applied flooring with aggregate dressing, having a thickness greater than 2mm and often described as sandwich systems.

These sandwich systems offer good slip resistance when freshly installed, but are only suitable for areas subject to light pedestrian traffic as the grip aggregate does tend to wear off, with the surface becoming polished. They are basically Type 3 systems (High Build Floor Coatings), modified to give added slip resistance. For heavier duty applications, Type 6 or Type 8 products should be specified.

Type 4 products may be used in wet environments, but do not offer resistance to the more aggressive chemicals. The base resin should provide a life expectancy of more than ten years, but the surface

dressing may require renewal every three to five years. The profiled surface is not readily cleaned with a mop and bucket or similar techniques, and may require special cleaning machinery. With the advent of increasingly economical Type 8 products offering better slip resistance, the use of Type 4 products is decreasing.

### The Resdev Solutions

Resdev's Pumagrip Plus and Pumagrip HD offer both epoxy and polyurethane alternatives in multi-layer systems. Type 4 products are typically used on internal and external ramps, in transport garages and engineering workshops, chemical plants and water treatment works.

Pumascreed Pumaflow Pumadur SL Pumantistat SL Pumagrip Plus Pumagrip HD  
Aerosols Pharmaceuticals General Engineering Ramps Garages Chemical Water Treatment

## Type 3 High build floor coating

Applied in two or more coats to give a final thickness of 300 to 1000 microns, and generally solvent free.

These high build coatings provide three to five times greater thicknesses than Type 1 and Type 2 products, and are ideally suited to areas subject to continuous foot and light wheeled traffic. Type 3 products are, however, relatively thin coatings and may be damaged by impact. For this reason, they are not recommended for areas requiring chemical resistance. When specified correctly for light traffic areas, these

products have a life expectancy of at least ten years. In areas subject to heavier wear, they may be readily refurbished with the application of additional coats.

### The Resdev Solutions

Resdev products suitable for use in this category include Pumashield, Pumatect and Pumatect Plus epoxy options, with Pumadur HB, Pumaflex 500 and Pumaflex 500 Plus providing the polyurethane alternatives. Typical applications include photographic and reprographic studios, printing plants, vegetable packers and other similar operations.

Pumashield Pumatect Pumatect Plus Pumadur HB Pumaflex 500 Pumaflex 500 Plus

# Floor coatings and seals

## Type 2 Floor coating

Applied in two or more coats at a dry film thickness of up to 100 microns per coat and generally solvent free or water borne.

This category represents economically priced, solvent free floor coatings for use in areas where the solvent content of Type 1 products

may be prohibited. They are primarily suited for light to medium traffic not subject to impact or other daily abuse.

These floor coatings are available in a range of attractive colours, designed to enhance the workplace and providing a dustproof surface which is easy to clean. Properly specified and applied only in areas subject to light traffic, a life span of five years is possible. In areas of heavier use, overcoating after two to three years may prove necessary.

### The Resdev Solutions

Resdev products developed for these applications include Pumacoat WD, Pumaguard SFS and Pumantistat SFS epoxy options, with Pumadur TF as the polyurethane alternative. These products are commonly used in areas such as aircraft hangars, garages, warehouses, pharmaceutical plants and boiler rooms.

Pumacoat WD Pumaguard SFS Pumantistat SFS Pumadur TF Pumaseal PC DD P1 P2



Type 3  
Type 2  
Type 1

Pumashield

Pumatect

Pumatect Plus

Pumadur HB

Pumaflex 500

Pumaflex 500 Plus

Pumacoat WD

Pumaguard SFS

Pumantistat SFS

Pumadur TF

Pumaseal PC DD P1 P2

## Type 1 Floor seal

Applied in two coats to give a dry film thickness of up to 150 microns, and generally solvent or water borne.

These low cost floor seals containing solvent are designed to penetrate the concrete substrate, giving additional strength and providing a tough, durable surface film. Available as clear options or in a range of attractive colours, these polyurethane seals are used to dustproof and enhance the appearance of concrete for applications

including warehouses, garden centres, storage rooms and light traffic areas. Overcoating may prove necessary after two to three years in areas subject to heavier traffic.

### The Resdev Solutions

All Resdev products developed for use as floor seals are polyurethanes, easily and swiftly applied using rollers. These include Pumaseal PC, Pumaseal DD, Pumaseal P1 and Pumaseal P2.

Photographic Reprographic Print Aircraft Hangars Warehouses Boiler Rooms Pharmaceuticals

Pumaflex 500 Pumaflex 500 Plus





Pumashield Pumatect Pumatect Plus Pumadur HB Pumaflex 500 Pumaflex 500 Plus

### Coved Skirtings

Producing a smooth transition from floor to wall, the installation of coved skirting facilitates ease of cleaning. Resdev produces coving compounds compatible with its entire range of flooring systems in Types 4-8.

### Joints

In order to align with base concrete slab movement joints, for the perimeter of stainless steel drainage systems and for aesthetic day joints on large projects, Resdev uses a range of compounds to form joints with a high degree of flexibility to accommodate movement.

### Wall & Specialist Coatings

Alongside its mainstream flooring products, Resdev has utilised its research into resin technology to develop a range of complementary systems. These include:-

- Solvent free vertical coatings, available as both epoxies and polyurethanes and designed for a comprehensive range of wall, coving, tanking and similar areas
- Grades complying with BS 6920 for potable water applications
- Anti-corrosive coatings for steelwork
- Pitch modified coatings for external waterproofing
- Ultra-violet resistant paints in gloss, silk and matt finishes, available in clear or coloured formulations

### Maintenance Products

To complement the product range, Resdev offers a selection of purpose-designed maintenance

Ensuring a lasting finish for resin flooring may necessitate the use of ancillary products in order to create a professional and hygienic end result. Resdev manufactures a range of associated products developed alongside its resin flooring range, designed to produce a perfect finish.

## Optimum Performance in Use

Experience has shown us that each and every application and requirement is different, dependent upon environment and proposed duty.

To ensure optimum performance of Resdev products in every instance, the company has opened up the resources of its Technical Centre to customers nationwide, giving Resdev customers direct access to specialists with expert knowledge of the performance characteristics of Resdev products.

that for every application, the correct product is selected in line with project assessments.

Such decisions and recommendations are supported by tests carried out in our in-house laboratory, designed to determine the suitability of selected products for specified environments.

The primary role of the Technical Centre is to ensure

Contact the **Helpline** on: **01422 379131**

# Technical consultation

## The FeRFA Quality Promise

Technical data covering each of the eight FeRFA types of resin flooring are available on request from Resdev. In order to adhere to the FeRFA Guide and to the relevant British Standards, specialist consultation covering product, application and environment must take place before specifications can be established.

Resdev personnel and approved contractors are available to carry out detailed site surveys and prepare professional recommendations in line with this drive for quality and performance.

In support of this quality initiative, Resdev products are only installed by a network of authorised applicators, trained in the use and application of these specialist materials.

[www.resdev.co.uk](http://www.resdev.co.uk)  
[info@resdev.co.uk](mailto:info@resdev.co.uk)

01422 379131

