



***STORMSHIELD***

External Wall Insulation  
Complete System Guide





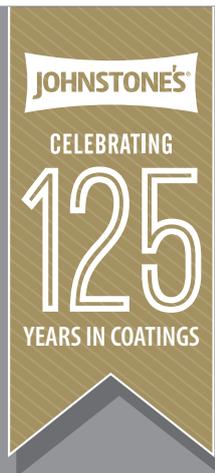
**STORMSHIELD**

## External Wall Insulation Complete System Guide

Here at Johnstone's Trade we are proud of our long history and our dedication to offering the best customer service in the markets we supply. 2015 marks the 125th anniversary of the Johnstone's brand and we have been dedicated to servicing professional trades people since 1890.

This guide will provide you with a brief introduction to our business and outline what you can expect from PPG when you choose us as your supply partner for your External Wall Insulation System.

In addition you'll also find information about the wide range of system options that we offer, helping you to make the right choices for your project.



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## About us

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### PPG Industries

Bringing innovation to the surface.™

Johnstone's is part of PPG Industries, the world's largest coatings company and one of the New York Stock Exchange's most trusted companies. PPG was founded in 1883 and has more than 150 manufacturing facilities and operates in more than 70 countries around the globe. In 2014, the average number of PPG employees was 46,000 and net sales were over \$15.4 billion.

## With this size comes real peace of mind...

- PPG Head Office, Pittsburgh, USA



## Total Coatings Solutions

As a brand of PPG Industries, Johnstone's Trade has access to global technologies which allows us to offer you a total coatings solution for any of your projects. PPG leads the way across architectural, industrial, aerospace, automotive, speciality and marine coatings – so you can be assured we know all about protecting surfaces from the elements in the harshest of environments.



• Architectural Coatings



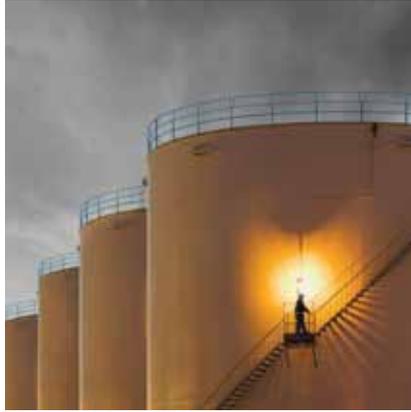
• Industrial Coatings



• Aerospace Coatings



• Automotive Coatings



• Speciality Coatings



• Marine Coatings

### A business that's here to stay

When you specify or purchase any Johnstone's product or system you are working with a partner that's big enough to cope with any eventuality. We've been around for nearly 130 years and will still be around for you in the future when our support might matter most.

### Johnstone's Stormshield

As one of the leading coatings brands in the UK, Johnstone's is committed to providing exceptional products to our customers and specifiers. We've built our name by offering the finest quality trade paints since 1890, and have expanded our offer to encompass exterior renders and insulation systems. We're not exactly new to exterior renders either - in other PPG businesses in Europe we've been manufacturing renders for over 25 years. So you can be sure that our product ranges meet the highest quality and environmental standards and are designed to provide a high performance solution for any project requirement.



# STORMSHIELD

## A business you can rely on

Providing high quality and effective services for our customers is at the very core of our business approach. In addition to superb commercial and technical support Johnstone's also offers an unrivalled wider service proposition.

### Supply chain excellence

PPG manufacture coatings in the UK at Europe's largest coatings plant situated in Birstall, West Yorkshire. In addition to state of the art manufacturing facilities PPG can boast a 35,000m<sup>2</sup> distribution facility on the same site from where we operate our own transport fleet. Our vehicles go almost everywhere in the United Kingdom almost everyday.

### Nationally local

Our central warehouse is supported by a network of almost 200 of our own Johnstone's Trade Centres with their own fleet of delivery vans, ensuring you are never far way from a delivery, support or assistance in your local area.

### Specification, commercial and technical support

Johnstone's Technical Sales Managers are dedicated to External Wall Insulation, and work in partnership with our specification and technical specialists to ensure that you are supplied with an honest and comprehensive specification for your project. This nationwide network of experts boasts a collective body of knowledge that extends to hundreds of years and they are determined to provide our clients with all the information and expertise needed.

### Supporting you every step of the way

Our dedication to providing first class support to our customers is unwavering. Whether you need a simple question answering, a project visit or have a problem with applying a product, we will guide you through the process, bringing reassurance to you and your clients alike. Balancing industry knowledge with customer support, we can provide advice on everything from the outset to the finishing touches and beyond - offering the total experience.

The team at Johnstone's are here for you every step of the way, and by involving us from day one you can enjoy the peace of mind that you are approaching your project in the best possible way and with first-class support delivering supply efficiencies you can rely on.



## Technical support

Johnstone's extensive package of technical services sits under the banner of PPG Extra - offering comprehensive advisory and consultancy services that have been developed to guide the full spectrum of applicators, clients and specifiers through key issues including legislation, building regulations, environmental concerns, social responsibility and system choices.

### Providing you with bespoke solutions

We are fully aware that every project and client has different requirements, which is why we go the extra mile to provide bespoke solutions tailored specifically to your needs.

Whether it is site surveys, working from plans, system performance calculations or detailed technical support, our dedicated experts and PPG Extra specialists and partner engineers will provide you with technical guidance to ensure you benefit from the most sustainable and appropriate solutions for your project.

After undertaking a comprehensive site assessment to determine the location and condition of existing substrates and application areas we will provide our clients with a detailed project specification. Our tailored specification includes information on products, preparation requirements and application details, life expectancy and the required maintenance schedules for the selected systems in order to help you plan for the future.



### The complete service offering

Johnstone's offer our customers the complete technical support package including:

- Support in accessing funding
- BRE approved U-Value calculations
- Site technical visits before specifications are written
- Full system technical specifications with bespoke detailing
- Full pull testing & reports for fixing suitability
- On site technical support during works
- Post installation inspections



## Approved applier network

At Johnstone's, our name and our reputation means a lot to us and our shareholders. Because of this we offer the highest quality products and work hard to make sure that our systems are only installed by Johnstone's Approved Appliers who have been trained and approved to meet our high standards.

Johnstone's are committed to not only ensuring our systems are applied properly to stand the test of time, but to working together with our customers to improve the quality of application throughout the industry.

Whether you are an installer looking to achieve certification from PPG or a client looking for an approved contractor please don't hesitate to get in touch for assistance.

### System application guide

All of our installers are provided with our detailed system application guide which provides step by step support to ensure Johnstone's Stormshield systems are applied to our stringent specification and which underpins the training and information provided on our approved applier programme.



### State of the art training facility

Our external wall insulation training and application centre at our Head Office in West Yorkshire typifies our approach. With dedicated application trainers, hi-tech classrooms and a 100m<sup>2</sup> external wall insulation application area alongside our existing paint training rooms we can offer unrivalled training and accreditation facilities.



### We'll come to you

We appreciate that it's not always possible to travel for a training programme so where necessary we'll travel to deliver our modules on site or at one of our local stores. With a number of our stores now fully equipped to deliver training and a fully mobile team and mobile application units we can offer quality training at a location near you.

### Speak to us

Want access to our approved applier network, or want to become an approved applier yourself? Just ask your local Technical Sales Manager or contact **01924 354354**.

## Experts in exterior colours

The impact of colour on the way we act and feel cannot be underestimated and at Johnstone's we understand the huge influence it holds. As a company with a long pedigree in coatings, we truly understand both the technical performance and psychological impact of colour.

We offer over 16,000 colours in our Johnstone's range of coatings and have hand picked from these a range of 200 render shades that not only offer a wide range of choice to our customers, but that also are available quickly from our industrial tinting facility at our Head Office in Birstall.

### Colour that lasts

These shades have also been chosen for their suitability for use on building facades as they offer excellent weathering and fade resistance. This is achieved through the use of high performance colour additives that have been extensively tested all over Europe for weather and UV resistance – in some of the sunniest climates of the Mediterranean and in the harshest of Alpine winters.

### Bespoke colours

Speak to our colour experts for other shades that are not part of the standard render offer. We can produce unusual or special colours from across the colour spectrum to client request. Please note that additional lead times may be required for special colours.

### Superb colour advisory

Whether you require bespoke colour schemes, colour samples or general colour advice, Johnstone's can provide the ideas and answers you need. Choosing from thousands of colours may prove daunting, so we have experienced colour consultants available to assist you throughout the colour selection process.

### Colour sampling service

Should you need to see the actual renders in the colour chosen before making that final decision we are able to provide a fast, reliable colour sample for you, or alternatively we can arrange for one of our team to apply a panel to a building or area you specify.



## Sustainability

Sustainability is key to our business and since our earliest days at PPG, sustainable business practices have been embedded in our culture and strategy. We take our responsibility to the environment and the communities we operate in extremely seriously and this is encapsulated in the sustainability vision and values we set for our business.

### PPG's Global sustainability vision

"To continue being the world's leading coatings and speciality products company with a focus on sustainability to ensure the success and lasting presence of our company for the benefit of our customers, our employees, our shareholders, our neighbours and our suppliers. We will act in a way that helps to ensure the longevity and resilience of our environment, our economies and our society".

### PPG sustainability values

- Demonstrate operational and environmental, health and safety excellence, minimizing our environmental impact
- Partner with employees and their families to improve their health and well-being
- Create an engaging and inclusive workplace
- Conduct business and operations in an ethical and compliant manner
- Deliver innovative and sustainable products and services to our customers
- Enhance value-creating relationships with suppliers and customers
- Deliver positive change to society and to the communities where we operate
- Deliver a superior return on investment to our shareholders

PPG's sustainability programmes and our progress against a number of key goals are outlined in our sustainability reports. In the UK we operate a sustainability strategy called Stepchange™ to a Greener Future and regularly update our customers and clients as to our progress.

Download our latest report from [www.johnstonestrade.co.uk](http://www.johnstonestrade.co.uk) and see our progress for yourself.



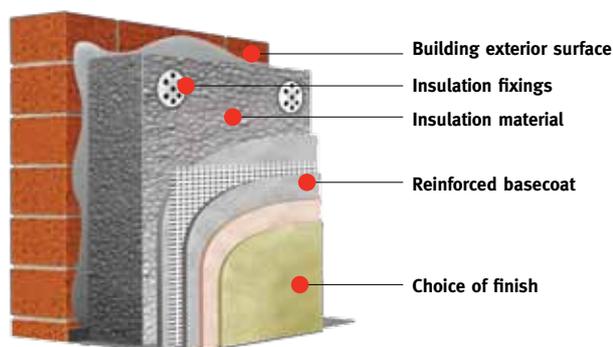
## External wall insulation

Johnstone's External Wall Insulation systems have been specially designed and developed to provide high performance solutions to our customers.

### What is External Wall Insulation?

In simple terms External Wall Insulation is a system of components that can be applied on the outside of a building to insulate, protect and enhance it. Johnstone's provide complete External Wall Insulation systems, an illustration of which can be seen below:

#### Enhanced EPS insulation with a silicone render finish



Johnstone's offer a wide range of insulation materials, fixings and finish choices to make sure that the performance and the aesthetic of our systems are perfectly aligned to our customers' needs.

### Why use External Wall Insulation?

Johnstone's External Wall Insulation is one of the best ways to protect a building and its residents from the elements. Our systems insulate properties, reduce energy costs and keep inhabitants warmer.

In addition to retaining heat and providing buildings with a highly durable finish, Johnstone's External Wall Insulation also offers the following benefits:

- It eliminates cold bridges in property walls
- It provides a new, improved look to properties in need of refurbishment
- It pushes the dew point out to help prevent condensation and damp
- It protects the structural fabric of buildings from the elements

### Complementary Paint and Render Systems

In addition to a comprehensive range of External Wall Insulation materials and systems, Johnstone's is uniquely positioned to offer Total Coatings Solutions to our clients and customers. With a huge range of market leading BBA approved masonry paints Johnstone's can offer comprehensive external decorating and EWI system maintenance options for the life of your chosen External Wall Insulation system. Additionally PPG also offers an extensive range of render systems designed for application to almost any masonry or carrier board substrate to suit a range of budgets and client requirements.

**Whatever your project and requirement, PPG has the right system for you. Please refer to our website, render system guide or contact us for more information or a technical visit.**

### Preventing heat loss

Almost a third of all homes in the UK have been constructed with solid walls which cannot be insulated by using cavity wall insulation. In properties constructed this way a significant proportion of all heat will be lost through the walls unless they are insulated - minimising the effectiveness of other energy efficiency investments such as improved heating systems, fitting new windows or doors and insulating lofts and floors.

### Typical heat loss in a solid wall property

It is therefore essential to insulate solid walls if these types of properties are to be made thermally efficient. Installing a Johnstone's External Wall Insulation System will significantly improve the thermal efficiency of a property, reducing the money spent by residents on heating bills and reducing carbon emissions too.

#### Typical heat loss in a solid wall property



### A simple guide to Johnstone's options and choices

Our expert team is on hand to make sure that you choose the right External Wall Insulation System components to best suit your thermal, protection and aesthetic needs from our wide selection of materials and finishes. We offer all of our insulation materials and all of our finishes in any combination, leaving you free to choose what works best for you...



## System durability

Johnstone's Stormshield External Wall Insulation systems are designed to withstand the rigours of the UK climate and provide excellent durability over many years.



### BBA Certification

All of our products and systems have been stringently tested and are independently certified by the BBA.

### 30 year expected life

Correctly applied Johnstone's Stormshield External Wall Insulation systems have a very long lifespan, particularly if they are properly maintained, easily exceeding 30 years of constant exposure in the UK climate.

### Reaction to fire performance

All of the systems and insulation types offered have been extensively tested by BRE Global for their reaction to fire performance in accordance with EN13501-1: 2007+A1: 2009 and achieve a Class B or better classification.

Additionally should you choose to use mineral wool insulation on your Johnstone's system this can be upgraded to Class A.

### Comprehensive life cycle maintenance programmes

All of our External Wall Insulation specifications will be issued complete with a long term maintenance programme to extend the life of the systems and ensure they continue to look as fresh as the day they were installed. Johnstone's offer a range of fully compatible repair products, paint coatings and cleaning materials for all of our External Wall Insulation systems.



## Insulation options

The first step in choosing your Johnstone's External Wall Insulation system is selecting the type of insulation material required.

Johnstone's offer a choice of four insulation types, each offering different performance characteristics across a number of criteria. Johnstone's Technical Managers are on hand to provide support and assistance, helping you to make the right choice for your project.

Each of our insulation types are provided in panels measuring **1200x600mm** and are available in a broad range of thicknesses to suit your project's thermal requirements.

### Rockwool dual density insulation

Rockwool mineral wool insulation offers a highly durable insulation option. This product is ideal for those applications where acoustic dampening or fire performance are critical considerations.

Thermal conductivity: **0.036 W/mK**

### Kingspan Phenolic insulation

This phenolic insulation option offers strong all round performance and excels thermally.

Thermal conductivity: **0.020 W/mK**

### Standard or White EPS insulation

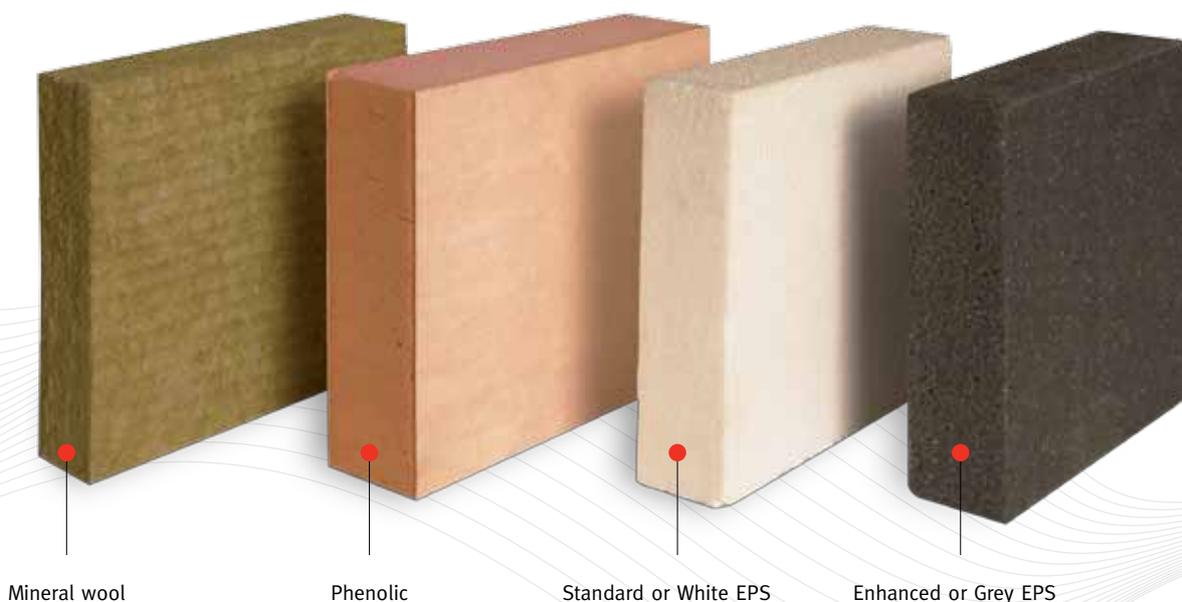
White polystyrene or EPS is easy to work with, stable and represents the most cost effective way of insulating a property.

Thermal conductivity: **0.038 W/mK**

### Enhanced or Grey EPS insulation

This product offers the same characteristics and benefits as white EPS, but is enhanced with graphite to improve its thermal performance over standard white EPS.

Thermal conductivity: **0.030 W/mK**



Mineral wool

Phenolic

Standard or White EPS

Enhanced or Grey EPS

## Insulation fixing

A critical stage of any External Wall Insulation project is the fixing of the insulation panels to the substrate. Johnstone's offer both wet adhesive and mechanical fixings to meet any specification requirement.

It is not always necessary to both wet and mechanically fix insulation panels, but the Johnstone's project specification will clarify exactly what fixings are required based on a number of factors including the height of the building, the insulation material being used and the system substrate. Comprehensive insulation fixing is critical to the safety and lifespan of the system.

Johnstone's Stormshield Insulation Panel Adhesive is a high polymer, cement based adhesive mixed to the required quantities on site and used to both fix insulation panels to correctly prepared masonry substrates and to level uneven masonry surfaces.

Johnstone's mechanical fixings are all sourced from a single partner supplier. All Johnstone's specified fixings carry European Technical Approvals for your peace of mind and to ensure the longevity of our systems.

A range of mechanical fixings are available for every insulation type, thickness and substrate. For large projects or problematic substrates on-site assessments will be carried out by qualified engineers and a number of pull tests completed to establish the appropriate fixings required for the project.

Whatever the project or substrate we're working with Johnstone's can provide the tests, reports and system specification to give you complete reassurance and peace of mind.



## Basecoat

Following the application of the insulation material it is coated with Johnstone's High Performance Render Basecoat. This specially developed basecoat has been created with both technical performance and UK applicators in mind.

Its polymer modified formulation provides excellent adhesion and performance characteristics and is designed for high speed application by skilled renderers.

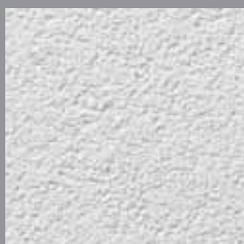
Johnstone's High Performance Render Basecoat is typically applied in two passes to a total thickness of 6mm.

Following the first pass of a layer approximately 3-4mm thick it is necessary to apply Johnstone's Stormshield reinforcing mesh cloth to reinforce and strengthen the basecoat. Johnstone's offer a standard mesh for normal application and a heavy duty high impact mesh for areas that are subjected to higher levels of traffic or potential abuse.

Following the application of the mesh a second pass of basecoat is applied to a **total thickness of 6mm**.

Johnstone's Basecoat should be finished differently depending on the type of finishing coat that has been specified. For brick effect render or dash systems the basecoat should be horizontally raked to provide a strong key for the finish, and sponge floated to a smooth finish for silicone enhanced or full resin silicone finishes. The basecoat should be allowed to fully dry before any finishing coats are applied.

## Render finishes



• Silicone Enhanced Render



### Silicone Enhanced Render

Johnstone's Stormshield Silicone Enhanced Render is a high performance thin coat render formulated from acrylic resins and silicone additives to offer the perfect balance of affordability and durability.

Available as standard in both 1.0mm and 1.5mm aggregate sizes and in a range of over 200 specially selected standard colours and up to 16,000 additional special shades. See colour chart for additional information.



• Full Resin Silicone Render



### Full Resin Silicone Render

Johnstone's Stormshield Full Resin Silicone Render is a high performance thin coat render formulated with silicone resin offering a highly vapour permeable full silicone finish.

Available as standard in both 1.0mm and 1.5mm aggregate sizes and in a range of over 150 specially selected standard colours and up to 16,000 additional special shades. See colour chart for additional information.



• Dash Render



### Dash Render

Johnstone's Stormshield Dash Render is a high performance cement based render enhanced with high performance polymers.

Available as standard in a range of 14 dash receiver colours and over 30 aggregate choices to provide a total of over 400 finish combinations. See colour chart for additional information.



• Brick Effect Render



### Brick Effect Render

Johnstone's Stormshield Brick Effect Render is a high performance cement based render enhanced with high performance polymers.

Available as standard in a range of 12 mortar, stone and brick colours and can also be matched to client specification. See colour chart for additional information.



• Brick Slip



### Brick Slips

Johnstone's also offer a wide range of brick slips that can be applied using Stormshield Brick Slip Adhesive and pointed with Stormshield Brick Slip Pointing Mortar.

## Silicone Render colour options

Johnstone's Stormshield Silicone Renders are available in 1.0mm and 1.5mm aggregate sizes as standard and in a wide range of colours that have been carefully chosen for their suitability for use on building exteriors.

### Render finishes colour guide

An extensive range of the 200 most popular Silicone Render shades are featured in the Johnstone's Render Finishes Colour Guide to provide a quick and easy way of choosing the perfect colour for your property.

### Got another colour in mind?

Additionally we offer our customers the ultimate colour choice and flexibility with access to our Johnstone's Trade database of over 16,000 shades and a colour service that will even create a unique recipe for you - matching your perfect colour from a sample or reference you provide\*.

*\*Please note however that certain special colours may require additional technical review or attract a longer lead time and will be priced higher than standard colours.*



## Brick Effect render colour options



• Brick red



• Charcoal



• Classic mortar



• Classic red



• Dark brown



• Dark grey



• Golden stone



• Light grey



• Sandstone



• Terracotta



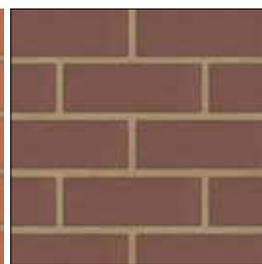
• Traditional grey



• Traditional red



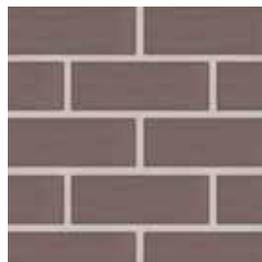
• Classic red & Classic mortar



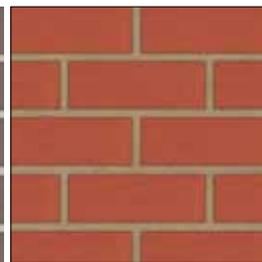
• Dark brown & Classic mortar



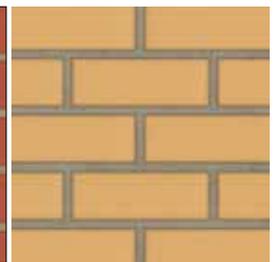
• Brick red & Classic mortar



• Dark grey & Light grey



• Traditional red & Classic mortar



• Golden stone & Traditional grey

## Dash Receiver render colour options



## Dash Aggregate options



## System maintenance

### Fully specified maintenance programmes

Johnstone's will provide a detailed specification unique to the finish chosen for the future maintenance and upkeep of the system. Regular maintenance of all system joints and seals will prevent water ingress and cleaning the finish will both extend its life and maintain the aesthetic.

### Repairing system defects

As a regular part of maintaining any external render system periodically identifying cracks, holes and damaged sections and correctly repairing them is essential. Johnstone's offer full post installation technical support for the repair and maintenance of our systems and will make sure the right products are used to patch and repair them.

### Supporting residents / home owners

Johnstone's can also work with our customers to provide all residents of properties where External Wall Insulation or Renders have been applied with a guide to maintaining their property. Many system issues are caused by accidental damage caused by home owners or tenants and by poor maintenance of rainwater and drainage systems.

### Johnstone's Stormshield paints

Johnstone's Stormshield offers a market leading range of masonry paint coatings most of which have been BBA approved suitable for use over previously rendered surfaces. This can be as a part of a decorative colour scheme on new work or as a part of a system refurbishment.



## Contact us

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# ***STORMSHIELD***



### Need advice?

Contact PPG's Technical Team on

**01924 354354**

## Your local technical sales manager

Name: \_\_\_\_\_

Contact Number: \_\_\_\_\_



Any queries please contact PPG on

**01924 354354**

**customersupport.acuk@ppg.com**

**www.johnstonestrade.com**



**PPG Industries**

Bringing innovation to the surface.™

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