

**ENNIS-FLINT<sup>®</sup> by PPG**



# Off-Highway

Product Range



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## About us

PPG Traffic Solutions (PPG TS) was established following PPG's acquisition of Ennis-Flint, Inc. in December 2020. Since then, we have been committed to protecting and beautifying the world.

PPG TS EMEA (Europe, Middle East, Africa) is equipped to serve and fulfil our customers' traffic safety and pavement marking requirements with our full range of quality products, vast geographic reach, and unmatched customer support.

Our areas of expertise include, but are not limited to:

- Road Markings
- Airfield Markings
- Micro-mobility
- Decorative Markings
- Off-Highways Markings
- High Friction Surfacing
- Road Studs
- Bridge Expansion Joints
- Joint and Crack Sealants

# About Off-Highway Product Range

Formulated with high quality resins, pigments and fillers, our Off-Highway Product Range includes a variety of materials engineered to meet a wide range of performance and climate requirements. Our large portfolio consists of line marking products for screeded, extruded, sprayed, profiled and preformed applications that are applicator friendly, therefore causing minimal disruption to traffic.

The extensive selection of products we provide for the purposes of both line marking and area marking is one of the key components of our Off-Highway Product Range. Some of our most common off-highway applications include car parks, EV-charging points, sports facilities, footpaths, in addition to many more.

## Certification

Off-Highway Product Range is compliant with BS EN 1436 Road Marking Performance and assessed for durability at road trials to BS EN 1824 and EN13197 for UK and a variety of European countries.

All our manufacturing sites in EMEA are ISO EN 9001 certified.

## Cost Efficiency

Our large portfolio includes products in economy and premium grades to meet varying budget requirements.

The Off-Highway Product Range offers cost-effective solutions for a variety of applications.

Our premium offering presents high-performance products for more demanding applications.





# Sustainability Efforts

## Bio-Based Resins

- Thermoplastic products contain 98% bio-based resins.

## Recycled Content

- Our thermoplastic products are manufactured with up to 45% recycled materials.
- Glass beads in our products are made with recycled glass.

## Toxicity

- Our Paint and MMA range are free from heavy metal and chlorine.
- Our MMA range has 100% high solids content.

## Renewable Energy

- Electricity for manufacturing process in UK comes entirely from renewable sources.\*

## Long-Lasting Value

- Our preformed thermoplastic products are highly durable and require fewer replacements than paint.

\*UK Power Generation | Electricity Production | EDF (edfenergy.com)

# Product Range

## PAINTS

- Standard and premium products, offered with or without antiskid and premix glass beads
- Forms strong bond with bituminous and concrete surfaces, providing excellent durability and bead adhesion
- Quick drying time
- Specification compliance EN1824, EN13197, EN1436

## MMA

- Premix glass beads added for enhanced night visibility
- Engineered to enable extended use throughout colder seasons
- Can be applied on both bituminous (with primer) and concrete substances
- Specification compliance EN13197, EN1436

## EPOXY

- Single-pack for easy application
- Variety of colours with UV stable pigments
- Excellent durability -> 1000 cycles at 175 microns w.f.t (ASTM D2486)
- Fast drying

## PREFORMED THERMOPLASTIC

- Versatile product suitable for line marking, symbols and decorative applications
- High performance and long-lasting value
- Easy application using gas torch
- Specification compliance EN1824, EN13197, EN1436
- CE Marked

# Line Marking

## Product Range

PAINTS*	Description	Colours
<b>FS01 SBP</b>	An acrylic solvent-based paint, suitable for application using brush, roller, conventional or airless marking machines. Minimum application temperature of +5°C. Maximum relative humidity upon application is 80%.	White, Yellow, Red, Green, Blue
<b>FS01 SBP PREMIUM</b>	An acrylic solvent-based paint, suitable for application using brush, roller, conventional or airless marking machines. Application temperature should be between +5°C and +45°C. Maximum relative humidity upon application is 80%. This product contains premix glass beads.	White
<b>WATERBORNE (WB) SERIES</b>	An acrylic waterborne paint, suitable for application using brush, roller, conventional or airless marking machines. We offer a standard and premium grade. Minimum application temperature is +10°C. Maximum relative humidity upon application is 75%.	White, Yellow, Red, Green, Blue
* Enhanced night visibility and skid resistance is possible by post-spraying the paint with a mixture of glass beads and anti-skid material.		
MMA	Description	Colours
<b>ROBUR® SPRAY</b>	A two-component, cold spray MMA product, suitable for application using airless machines. Air temperature upon application should be between +12°C and +35°C. Maximum relative humidity upon application is 85%. Provides excellent night visibility and fast drying. Curing is activated by the application of reactive drop-on glass beads.	White, Yellow
<b>ROBUR® STRUCTURED</b>	A two-component, solvent-free cold plastic for profiled line marking (variable), suitable for hand application or machine extrusion. Air temperature upon application should be between +5°C and +30°C. Maximum relative humidity upon application is 85%. Excellent night visibility, even in wet conditions. High durability and fast drying. Curing is activated by the addition of a catalyst.	White, Yellow
EPOXY	Description	Colours
<b>PRISMO EPOXYLINE®</b>	A pure epoxy ester solvent-based paint, suitable for application by hand or conventional spray machines. Application temperature should be between +5°C and 45°C. Maximum relative humidity upon application is 80%. Provided in a single pack for hassle-free application, ideal for line marking.	White, Yellow, Red, Green, Blue
PREFORMED THERMOPLASTIC	Description	Colours
<b>THERMALINE®</b>	A preformed thermoplastic product, easily applied to the surface using a gas torch without the need for specialist applicators or machinery. Reflectorised with skid resistance. Supplied in sheets and rolls. Available in a variety of widths and lengths.	Variety of Colours (see Thermaline® preformed thermoplastic brochure)

# Area Marking

## Product Range

PAINTS	Description	Colours
<b>HELIX™</b>	An acrylic waterborne paint containing anti-skid aggregates for enhanced skid resistance. Suitable for application using conventional marking machines or handgun, brush and roller for smaller areas. Minimum application is +10°C. Maximum relative humidity upon application is 75%.	White, Yellow, Red, Green, Blue
<b>WATERBORNE (WB) SERIES</b>	An acrylic waterborne paint, without antiskid aggregates for a smooth finish. Suitable for application using brush, roller, conventional or airless marking machines. We offer a standard and premium grade. Minimum application temperature is +10°C. Maximum relative humidity upon application is 75%.	White, Yellow, Red, Green, Blue
MMA	Description	Colours
<b>ROBUR® GRIP</b>	A two-component, solvent-free cold plastic, supplied with the option to blend aggregates in to boost surface texture and skid resistance. SRT values of greater than 80 can be achieved. Suitable for hand application. Minimum application temperature is +7°C. Maximum relative humidity upon application is 85%. Curing is activated by the addition of a catalyst.	White, Yellow, Red, Green, Blue, Ultramarine Blue, Black
EPOXY	Description	Colours
<b>PRISMO EPOXYLINE®</b>	A pure epoxy ester solvent-based paint, suitable for application by hand or conventional spray machines. Application temperature should be between +5°C and +45°C. Maximum relative humidity upon application is 80%. The durable material makes it highly suitable for area marking.	White, Yellow, Red, Green, Blue
PREFORMED THERMOPLASTIC	Description	Colours
<b>THERMALINE®</b>	A preformed thermoplastic product with skid resistance. Easily applied to the surface using a gas torch without the need for specialist applicators or machinery. Pre-cut interconnected signs and symbols that are ready to use from the box. The portfolio includes a variety of designs and colours.	Variety of Colours (see Thermaline® preformed thermoplastic brochure)

# Applications

In addition to PPG TS being an industry leader in the highway and road marking sector, our versatile product portfolio offers solutions for a range of specialised applications.

Our Off-Highway Product Range includes paints, MMA, epoxy, and preformed thermoplastics, each offering different benefits that can help you meet the needs and requirements of your space.

Whether you are looking for slip-resistant surfacing, customised symbols, or simply durable line markings, our product range offers solutions that fit you.

Some of the specialised applications in our Off-Highway Product Range include:

- Warehouses and Factories
- Car Parks
- Micro-Mobility
- Docks
- Sports Facilities





## Warehouses & Factories

Factories and warehouses are at the heart of industry and a critical component in manufacturing the products we use every day.

Within these facilities, it is common to work alongside potentially dangerous hazards such as the use of heavy machinery and chemicals.

To help keep your workers aware of hazards, we supply products that help workers to identify areas of danger quickly and easily.

## Floor Markings

ROBUR® GRIP · HELIX · WB SERIES

The installation of proper floor markings in both warehouses and factories is critical to helping ensure worker safety when moving around the workplace.

Our Helix paint and Robur® Grip MMA product are suitable for the purpose of safety flooring due to their enhanced slip-resistant properties.

Our WB Series can be applied for area marking where uniform and smooth finish is required.

## Pedestrian Walkways & Loading Bays

ROBUR® SPRAY · ROBUR® STRUCTURED  
FS01 SBP · FS01 SBP PREMIUM · WB SERIES  
THERMALINE®

Pedestrian walkways and loading bays within factories should be clearly delineated, to maximise pedestrian and driver awareness of each other.

Our MMA products (Robur® Spray and Structured), paints (FS01 SBP, FS01 SBP Premium, WB Series) and Thermaline® preformed thermoplastic are ideal for delineating pedestrian zones and loading bays.

Across the range, all products offer the addition of glass beads for enhanced retroreflectivity which increases visibility in all lighting conditions. Our Thermaline® preformed thermoplastic offers a wide colour range, enabling the usage of bright colours to maximise visibility.

The profiled application of Robur® Structured leaves the product raised, giving sensory and audible warnings to drivers, thus helping to increase awareness in the workplace.

## Legend, Symbols & Arrows

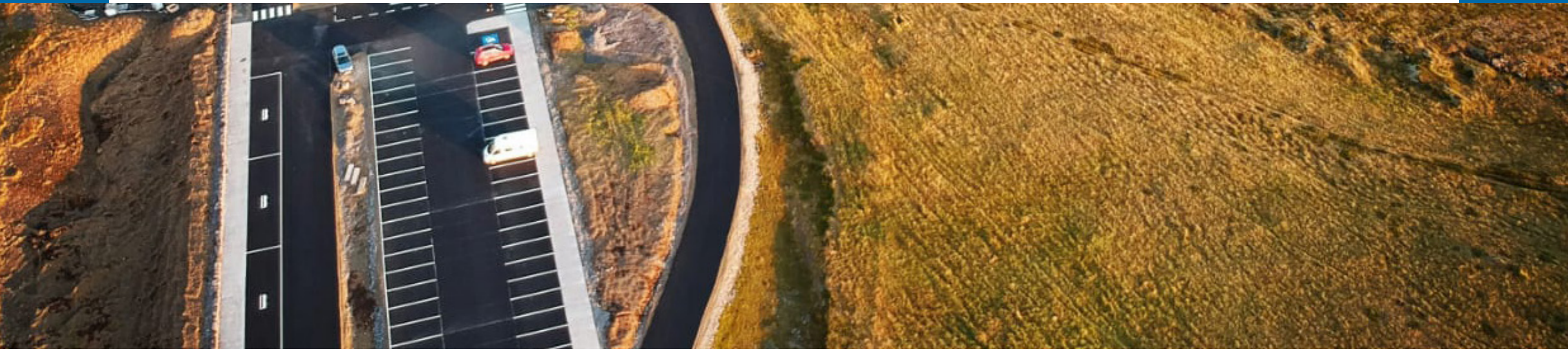
THERMALINE® · PRISMO EPOXYLINE®

To further ensure safety awareness within warehouses and factories, hazardous areas should be adequately marked to provide clear warning to all users.

Our Thermaline® preformed thermoplastic is well-suited for this purpose, offering premium, durable solutions for area demarcation.

Whether it's for directional arrows, speed limit warnings or pedestrian markings, this product offers a solution providing durable performance and that can be customised to the needs of your working space.

Our Prismo Epoxyline® epoxy-based paint can be used in conjunction with Thermaline® preformed thermoplastic, providing a coloured base on which to apply symbology. The variety of colours available all offer UV stable pigments, helping to maximise the visibility of any legends, symbols or arrows.



## Car Parks

For most shops and small businesses, car parks are the first point of interaction with customers. It is important that they are kept in good condition to leave a good first impression and encourage them to come back.

Due to the constant flow of both pedestrians and vehicles, it is critical that these are well marked to help identify areas where pedestrians and vehicles share space and direct the flow in an orderly manner.

Our product range offers a variety of durable, high visibility solutions that can be seen by all road users easily, allowing them to navigate dark, sheltered spaces.

## Parking Space Delineation

ROBUR® SPRAY · ROBUR® STRUCTURED  
FS01 SBP · FS01 SBP PREMIUM · WB SERIES  
PRISMO EPOXYLINE® · THERMALINE®

Clear parking space delineation is an essential element to car parking, providing guidance to drivers and allowing them to differentiate the spaces.

Our MMA products (Robur® Spray and Robur® Structured), paints (FS01 SBP, FS01 SBP Premium, WB Series), Prismo Epoxyline® epoxy-based paint and Thermaline® preformed thermoplastic are all highly durable solutions to line marking in car parks.

For unsheltered car parks, Robur® Spray and Robur® Structured MMA products, WB Series paint and Thermaline® preformed thermoplastics are durability assessed to EN13197, minimising wear across all weather conditions.

## Arrows, Lettering & Symbols

THERMALINE®

Car parks can be hazardous areas due to the constant flow of cars and pedestrians in a space with less visibility. Car parking signage needs to be clear so that it can be read quickly, allowing users to respond to dangers and navigate the space with ease.

Our Thermaline® preformed thermoplastic is a reflectorised road marking that is offered in a range of widths and lengths to denote directions and dangerous areas. To serve the variety of car park users, we also offer several designs that serve different users within a car park.

From 'Electronic Vehicle (EV) Charging Symbols' to 'Mother and Baby Parking', our range of symbols can be customised on request (speak to our Sales Team for more information).

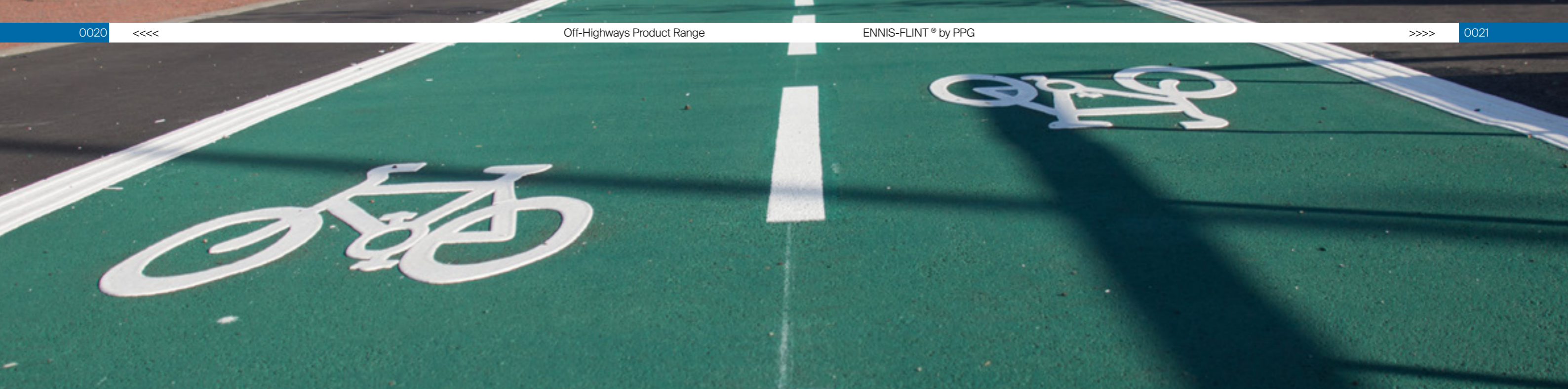
## Pedestrians Crossings

ROBUR® GRIP · HELIX · PRISMO EPOXYLINE®  
THERMALINE®

Whilst car parks must provide clear directions for drivers, it is equally important that wayfinding for pedestrians is clear to help minimise the risk to them as they navigate the area. Enabling pedestrians to quickly find entrances and exits is essential in the directing the flow of traffic.

Our Robur® Grip MMA product, Helix paint and Thermaline® preformed thermoplastic all offer anti-slip properties to help increase safety for pedestrians in car parks.

Our Prismo Epoxyline® epoxy-based paint has increased resistance to wear than regular paints, ensuring a long-lasting solution to pedestrian demarcation.



## Micro Mobility

In urban environments, micro-mobility has been increasingly promoted as an alternate method of travel due to its potential social and environmental benefits.

Driven by 'cycle to work' schemes and 'congestion charges', increased usage of bikes can be used to reduce emissions and congestion in busy areas.

However, travelling in busy areas can raise safety concerns for cyclists, who are the most vulnerable users of multi-modal zones. It is critical that cyclist safety is prioritised through the implementation of partially or fully segregated cycle lanes, or relevant signage to raise awareness of bike users.

Through our vast product range, we help to keep drivers more aware of cyclists on the roads.

## Lane Marking

ROBUR® GRIP · HELIX

Colourful lane demarcation is a common practice in the implementation of cycle lanes as it increases visibility, helping to raise awareness of dedicated lanes for cyclists, drivers and pedestrians.

Our Helix paint and Robur® Grip MMA product, provide long-lasting colour solutions that are resistant to decolouration, thus providing clear lane segregation with minimal need for maintenance.

Our Robur® Grip MMA product also offers the addition of aggregates to reach your desired level of skid resistance.

## Lane Symbols

THERMALINE®

One of the most efficient and cost-effective solutions to improving lane delineation for cyclists is through wayfinding (directional arrows), signage and shared lane markings to raise awareness of bike users.

Our Thermaline® preformed thermoplastic provides a highly durable solution that is engineered to provide lasting performance. Its excellent retroreflectivity means that it is visible to cars, cyclists, pedestrians, and other road users, allowing cyclists to navigate multi-modal zones more confidently.

## Braking Zones

TYREG RIP® CYCLE

We've developed our Tyregrip® Cycle epoxy-based product to assist users by providing extra traction in braking zones, such as approaches to traffic lights, hazardous bends, junctions, pedestrian crossings and roundabouts.

This versatile product has many benefits, from traffic calming in multi-modal zones to providing skid-resistance for cyclists and other micro-mobility vehicles. The aggregates used in our Tyregrip® epoxy-based product provides increased texture depth in areas that require high grip.



## Ports

Ports are fast-paced, busy areas that require great levels of logistics and organisation to meet the international shipping demand.

With this, comes a need for clear lane marking to delineate loading docks, pedestrian areas, hazard zones, and more, to help improve both the safety and efficiency of operations.

Our varied product offering provides different solutions to loading dock delineation with a wide range of benefits.

## Loading Dock Delineation

**ROBUR® SPRAY** · **ROBUR® STRUCTURED** · **FS01 SBP** · **FS01 SBP PREMIUM** · **WB SERIES**  
**THERMALINE®** · **PRISMO EPOXYLINE®**

Our Robur® Spray and Robur® Structured MMA products, our paints (FS01 SBP, FS01 SBP Premium and WB Series), Thermaline® preformed thermoplastic and Prismo Epoxyline® epoxy-based paint all assist in providing clear delineation that is highly durable.

Our Robur® Spray and Robur® Structured MMA products and our WB Series paints are durability assessed to EN13197, minimising the need for maintenance within the docks.

Our Prismo Epoxyline® epoxy-based paint also offers excellent durability, in addition to being offered in a single pack for easy application.

## Sports Facilities

Whether for schools, playgrounds, or local clubs, maintaining your sports facilities is fundamental to encourage people to keep active.

Our solutions offer vibrant surfacing and markings for your sports facilities that are highly durable, colourful and can meet the design requirements of a wide variety of sports.

## Surface Paints

**HELIX**

Our Helix paint offer coloured surfacing solutions that have anti-slip properties to allow fast-paced gameplay.

The wide range of colours available are manufactured to be long-lasting, thus minimising the need for maintenance.

## Contact

TS-CHO-Info@ppg.com

[www.ppg.com](http://www.ppg.com)  
[www.ennisflint.com](http://www.ennisflint.com)

+44 1257429864

@PPG on social media:

