

transport flooring

Bus & Coach

step eternal flotex° coral°





creating better environments

Creating better Bus & Coach environments across the world

For Forbo Flooring, creating better environments means a better working, living or travel environment. To achieve this, Forbo has developed an unrivalled and versatile floor covering collection that truly adds to the quality of people's lives wherever they are.

Creating better environments also means caring for the environment and its people. For more than 100 years, inspired by the world around us, Forbo Flooring has been producing floor coverings. By using state of the art production processes we minimize the impact on our environment. All our manufacturing operations are ISO 14001 certified, raw materials are used efficiently and waste is minimised and recycled wherever possible. Ongoing research and development continue alongside an active environmental policy.



Content

- Creating better Bus & Coach environments
- 3 Forbo Flooring in Bus & Coach 4
- Forbo products in Bus & Coach Product overview
- 6 8
- Surestep

- 10 Eternal
- 12 Flotex 14
 - Coral
- 16 Service products 18 Technical specifications

2

Forbo Flooring, your partner of choice in Bus & Coach

Forbo Flooring Systems, addresses all the issues specifiers need to consider when looking at the floor covering needs for bus interiors.

Bus & Coach flooring

Bus and coach interiors, including the flooring, play a key role in achieving customer satisfaction. However, designing a comfortable and aesthetically pleasing interior is not easy because the bus and coach industry has to meet an array of health and safety legislation. Forbo Flooring Systems offers the widest variety of flooring solutions that meet all these regulations and also provides all the expert advice you may need when selecting floor coverings for this specialist market.

Entrance systems

Given that most vehicle interiors have to withstand heavy foot traffic, a durable flooring solution is a must. By investing in high-quality flooring – including effective entrance systems – and ensuring regular cleaning, operators can prolong the life of the vehicle flooring and keep it looking good. Coral textile entrance systems offer the ideal solution for entrance areas, as they meet all the necessary legislation while providing a stylish and effective barrier system.

Durable

The combination of precisely-developed materials and unique construction methods makes our products exceptionally durable, ensuring high appearance retention and low wear characteristics.



Solutions for Bus & Coach environments

Forbo Flooring Systems offers textile and flocked flooring for coaches and flocked flooring and safety vinyl (**up to R13**) for city buses. All these products meet international industry requirements. This includes Forbo welding rods, adhesives, sealants and installation tools. Forbo's products are fully certified and combine durability and a wide variety of designs and colours.

You can choose from a rich diversity of designs, ranging from natural designs to the sparklingly innovative. Our products are both stylish and extremely hardwearing. We guarantee a combination of the best products in the market supplied from one specialised manufacturer.

Forbo Flooring, experience in Bus & Coach



Entrances

Entrance flooring systems are fundamental to modern vehicle interior design. The flooring for the entrance of a city bus should offer safety with improved slip resistance (**up to R12**), whilst the entrance steps of a coach should protect the interior from dirt, dust and water. Entrance flooring systems will minimise maintenance costs by protecting the flooring and will help to maintain the appearance of the flooring throughout the lifetime of the vehicle.

coral[®] surestep safestep



Our experience, your project

Interiors in public transport play a key role in achieving customer satisfaction. Forbo has a list of references as a total solutions provider and is the only total solutions provider in the market!

Being able to supply you with adhesives, high quality flooring and floor care advice, ensures continuity throughout the installation and you can be assured of the accountability from a single supplier.



Vehicle interiors

Whether the requirement is flooring for inner city buses or luxury coaches, Forbo offers a range of products including Eternal (vinyl), Flotex (textile) and Safestep/Surestep (safety floors) to meet your specific requirements.

surestep safestep eternal flotex[®]



More than a supplier

Forbo is the only complete flooring system provider in the market offering:

- High quality flooring products
- Adhesives and mastics
- Installation training and FloorCare advice

Product overview





eternal

surestep safestep

A durable floor covering combining outstanding slip resistance (**up to R12**) with a wide range of design possibilities. The PUR Pearl surface provides superior, long-lasting appearance and performance.

Benefits

- R10, R11 and R12 in anti slip enhanced performance
- PUR Pearl lacquered surface providing easy cleaning and maintenance
- Low gloss surface for low scuff and a natural look
- Coloured durable wear layer for a long-lasting appearance
- High recycled PVC content
- Wide design variety
- Optional with or without felt backing for better adhesion properties

A highly durable floor covering with a wide range of design possibilities. The PUR Pearl surface provides superior, long-lasting appearance and performance.

Benefits

- R10 in anti slip enhanced performance
- PUR Pearl lacquered surface providing easy cleaning and maintenance
- Low gloss surface for low scuff and a natural look
- 100% transparent durable wear layer for a long-lasting appearance
- High recycled PVC content
- Wide design variety
- Optional with or without felt backing for better adhesion properties





coral®

A unique floorcovering, combining the cleaning properties and durability of a resilient flooring with the comfort, slip resistant and acoustic properties usually associated with textiles.

Benefits

• Nylon 6.6 ensures high durability

flotex[®]

- Hygienic
- Easy to clean; easy soil removal due to short Nylon fibres
- Bacteriostatic
- Improved indoor air quality (independent proven by Allergy UK)
- Slip resistant

The market leader in entrance systems providing an exceptionally versatile and proven range of 'clean-off' entrance system products and customizable carpets.

Benefits

- High moisture absorption
- Dirt scraping for effective clean off
- High dirt storage
- Advanced colouring & choice
- Excellent at soil hiding



Surestep and Safestep are Forbo's offer in slip resistant vinyl. The collection is slip enhanced with carborundum or aluminium oxide particles providing an R10 to R12 rating without affecting the clarity in design. The Wood and Stone designs look good in luxurious coaches and for creating warm and user-friendly areas in buses while ensuring slip resistance.

surestep & safestep

Surestep and Safestep provide proven design and functionality. With a wide colour palette and a highly durable slip resistance this range provides a good choice for many types of transport applications. Safestep offers slip resistance up to R12.

Surestep can optionally be provided with a felt backing to improve the adherence properties in combination with specific adhesives and sub-floors.



surestep & safestep



171532 | sun

171222 | dune





171812 | taupe



18242 | sunny beech



174362 | clay



175032 | smoke





174262 | umber



175952 | elephant



171712 | sky



176282 | dragon



18942 | natural oak







175962 | steel



171782 | night



171602 | plum



18662 | pear



174562 | pepper



175992 | charcoal

eternal

Eternal is synonymous with assured quality. The brand's benefits are easy to see and clearly recognizable. Quite simply, Eternal is chosen for its trustworthy performance and broad range of designs and colours.

eternal

The Eternal collection mixes realistic and contemporary designs to offer a unique pattern and colour signature. Designer quality for sheet vinyl.



eternal



41322 | smoke



40212 | mouse



40812 | taupe



10542 | grey oak



11442 | washed beech



41012 | tomato



40352 | corn



40602 | plum



11912 | whitewash oak



11542 | traditional oak



41232 | night



40162 | marine



40882 | apple





10232 | dark walnut



41252 | mercury



40662 | steel



40382 | carbon



11382 | anthracite stripe



10812 | black beech





A unique floor covering that looks and feels like a carpet but with straight fibres making it easy to clean. Flotex has a smooth, velour like surface that is comfortable to walk on, with excellent slip resistant properties.

flotex®



Flotex Classic designs are characterised by their subtle nuances in colour and by the design styles that deliver small scale designs and a semi plain allover look.

Flotex HD represents the unique High Definition digital print collection that creates superior texture with almost 3D-like appearance. Flotex HD, through its technology, allows for large endless pattern repeats and vivid life like colours creating a new dimension for Flotex and making the product attractive for todays transport environments.

Flotex offers consistent protection against a wide variety of bacteria thanks to Sanitized; a highly effective integral antimicrobial treatment that results in a healthier environment. Thanks to its unique construction, which helps to reduce the amount of allergens in the atmosphere, Flotex has been awarded the prestigious Allergy UK Seal of Approval.



flotex[®]classic



482026 | neptune



290005 | melon



242005 | sapphire



290007 | suede



382010 | evergreen



246013 | amber



246004 | gull



242012 | walnut

flotex[®]HD



010038 | white oak



610005 | brandy



010041 | smoked beech



520017 | lime



010042 | steamed beech



530016 | denim



010039 | european white wood



540014 | grape

coral®

An exceptionally versatile range of entrance systems to choose from, performing as the ideal moisture and dirt barrier. There will always be a Coral product to meet your needs.

coral[®] brush blend & coral[®] brush pure

Coral Brush pure/blend are ideal for vehicle entrances including steps when you require an entrance system that can simultaneously absorb moisture and remove dry soiling.



coral[®] brush blend



5750 | aztec black



5748 | pesto green



5749 | voodoo purple

coral[®] brush pure



5741 | cannon grey



5747 | zodiac blue



5766 | cognac brown



5745 | woodsmoke grey



5742 | atoll blue



5744 | coir brown



5730 | vulcan black



5714 | shark grey



5727 | stratos blue



5726 | jambalaya brown



5720 | gondola black



5710 | asphalt grey



5719 | bossanova purple



5729 | sangria red



5721 | hurricane grey



5715 | charcoal grey



5724 | chocolate brown



5723 | cardinal red

Colour palette: Coral brush blend: 9 colours/Coral brush pure: 12 colours.

Service products



Welding rods

Welding rods ensure high levels of hygiene because they make seams easy to clean while preventing water reaching the subfloor. Forbo offers welding rods to match to all the vinyl references.

Sealant

Helmipur SH100 is the perfect bonding solution to seal edges or seams that are hard to reach with welding rods.



Adhesives

Forbo offers a variety of suitable adhesives for flooring installations. Eurocol 640 is a very low VOC-emission adhesive with a high initial grab for vinyl, polyolefin and rubber floor covering and the eurocol 650 is a low VOC-emission, solvent-free and powerful dispersion-based contact adhesive with a strong adhesion.



Installation tools & training

Based on our experience and our continuous research we can recommend and supply a complete assortment of high-grade installation tools. These will help you to achieve a simple and professional installation of our floor coverings.



Aquajet

We recognize that sometimes a client wishes to create something totally unique, perhaps something specific to a particular project, such as signage to facilitate the restrictions and safety guidelines within the bus. Whatever may be required, our in-house design team has skills and experience to turn ideas into reality. From an initial concept, detailed drawing, or computer file, our design team prepares a flooring design that is transferred electronically to our Aquajet cutting machines. These computer-controlled machines represent state-of-the-art cutting technology and produce precision cut items accurate to a fraction of a millimeter. The pattern is inlaid and, importantly, retains all the performance characteristics of the original product. Whether it is a complete bus layout in floorcovering, a company logo, signage or thematic design, the possibilities are limitless.

For more information about Service Products contact your local Forbo Flooring office or visit our website www.forbo-flooring.com.

Solutions

Forbo offer a truly comprehensive and compliant flooring product portfolio for the bus and coach sector. Within the portfolio are entrance systems, safety floors, vinyl floors and flocked flooring as well as all adhesives, accessories and installation tools. You'll see we also offer the widest range of design and colourway options available on the market giving you a world of choice.

Forbo have years of experience with regards to material scheduling and specific logistical requirements, both for the new build and refurbishment of bus and coach vehicles. We will work closely with you to understand your exact requirements, in order to achieve the optimum service level.

Working with Forbo means;

- A sole source of supply for all your flooring requirements
- The largest and most versatile choice of floorcoverings
- A bespoke design service
- Global advice, support and cross border project management.



Technical specifications

				Surestep	Safestep (up to R12)
	Total thickness	EN 428	ISO 1765	2.0 mm	2.0 mm
	Roll width	EN 426		200 cm	200 cm
	Roll length	EN 426		20 - 27 m	20 - 27 m
ß	Total weight	EN 430	ISO 8543	2750 gram/m ²	2750 gram/m ²
	Pile installation weight		ISO 8543		
	Pile thickness		ISO 1766		
	Pile material				
『	Dimensional stability	EN 434	ISO 23999/ISO 2551	< 0.1%	< 0.1%
- hor	Abrasion resistance	EN 660-2	ISO 24338	≤ 2mg/mm ³	≤ 2mg/mm ³
°Z	Indentation residual	EN 433	ISO 24343-1	≤ 0.05 mm	≤ 0.05 mm
R	Light fastness		EN ISO 105/B02	≥6	≥6
52	Flexibilty	EN 435	ISO 24344	Ø 10 mm	Ø 10 mm
	Resistance to chemicals	EN 423	ISO 26787	Very good	Very good
<u>7</u> 7	Electrical resistance	EN 1081	ISO 10965	> 1.10° Ω	> 1.10° Ω
	Contact sound insulation		ISO 140-8		
	Slip resistance	DIN 51130/51131 EN 13845 Annex C EN 13893		R10 ESf	R11, R12 ESf
C Rest	Fire resistance	ECE-R 118 FMVSS 302		Approved	Approved
Z	Personal charging		ISO 6356	< 2 kV	< 2 kV
	Heat transmission resistance	EN 12524		0.25 m ² K/W	0.25 m ² K/W

Eternal	Flotex classic	Flotex HD	Coral brush blend/pure
2.0 mm	4.3 mm	4.3 mm	Approx. 9 mm
200 cm	200 cm	200 cm	Approx. 100/155/205 cm
Approx. 25 m	30 m	30 m	Approx. 27.5 m
2800 gram/m ²	1800 gram/m ²	1800 gram/m ²	Approx. 3400 gram/m ²
	Approx. 250 gram/m ²	Approx. 250 gram/m ²	Approx. 920 gram/m ²
	Approx. 2 mm	Approx. 2 mm	Approx. 7 mm
	100% polyamide	100% polyamide	ECONYL® 100% regenerated polyamide BCF
< 0.1%	≤ 0.2%	≤ 0.2%	Pass
≤ 2mg/mm ³			
≤ 0.05 mm			
≥ 6	≥ 6	≥6	> 5
Ø 10 mm			
Very good	Very good	Very good	Very good
$R1 > 1.10^{9} \Omega$			hor. 1.1 x 10^11 $\Omega,$ vert. 3.1 x 10^10 Ω
	$\Delta Lw = 20 \text{ dB}$	$\Delta Lw = 20 \text{ dB}$	
R10	R13	R13	
	DS: > 0.30	DS: > 0.30	$\mu = 0.51$
Approved	Approved	Approved	EN 13501-1: B _{fl} -s1
< 2 kV	< 2 kV	< 2 kV	< 2 kV
0.25 m ² K/W	0.048 m² K/W	0.048 m² K/W	ISO 8302: 0.118 m ² K/W

Forbo Flooring Systems is part of the Forbo Group, a global leader in flooring and movement systems, and offers a full range of flooring products for commercial and affordable housing and new build markets. High quality linoleum, vinyl, textile, flocked and entrance flooring products combine functionality, colour and design, offering total flooring solutions for any environment.



All countries

Forbo Flooring Systems High Holborn Road Ripley Derbyshire DE5 3NT UK Tel: +44 (0) 1773 744121 Fax: +44 (0) 1773 744142 Email: info@forbo-transportflooring.com www.forbo-flooring/transportation



