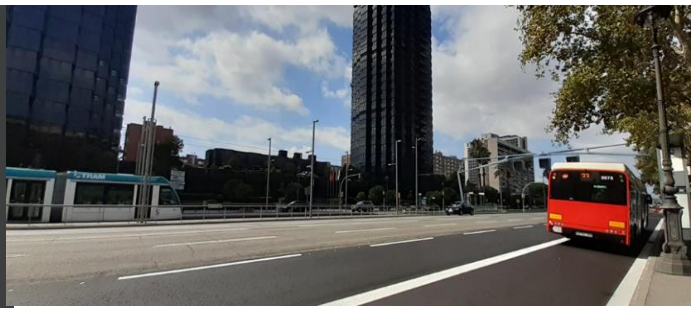
BUS LANE SYSTEM

A comprehensive system designed to withstand bus traffic and braking forces, protect the asphalt from spillages and eliminate weak points.



High-performance design system

The bus lane is a system designed to provide a comprehensive solution to the issues specific to bus traffic. This includes structural improvement of the road surface and a more resistant wearing course through formulations of specific mixtures. The elimination of weak points and the application of fuel-resistant treatments complete the system.

Main features

- Mixture specially designed for structural improvement and specific stresses
- Improved rutting resistance
- Complete section for structural reinforcement
- System adaptable to movements of flexible pavement
- Non-slip
- Fuel-resistant
- Reduced braking distance in stopping zones
- Elimination of weak points
- Customised, UV-resistant colours

Hot mix asphalt (HMA) design

The HMA AC22 BIN PMB 45/80-65 base formulated to withstand the demands of this type of road allows for an improved modulus and structurally reinforces the road surface section.

The Fireffort wearing course has a structure based on internal friction between the aggregates, thus avoiding deformation and maintaining balance with the applied thickness.

The modified PMB 45/80-65 bitumen ensures adhesiveness between all components and guarantees tangential force support.

The use of fibres makes it possible to use a larger quantity of binder without run-off.

Fuel-resistant treatments

To improve the performance of the system as soon as it is installed, we will apply our fuel-resistant and non-slip solutions:

Firflex AP/Firbond-Pu for braking and stopping areas

The stopping and braking areas in bus lanes are strengthened with the application of resin-based fuel-resistant treatments to protect the road surface from the issues associated with spillages specific to these areas.

Firflex AP for gutters

After removing the weak points of the precast gutter, the resin is applied to the gutter area to simulate the visual characteristics and provide mechanical support to passing buses.

Application

Milling is carried out to ensure a complete and uniform section for greater structural reinforcement.

The AC22 BIN PMB 45/80-65 base course is spread and compacted in a variable thickness of between 7 and 11 cm. This is followed by the spreading and compacting of the Fireffort wearing course, designed for application in a thickness of 4 cm. Once this has been completed and the road surface has reached the correct temperature, the resin-based fuel-resistant treatment is applied. Two coats are required for Firbond-PU at 0.7 kg/m² per layer, and one layer is required for Firflex AP at 2.5-3 kg/m² per layer.

For an aesthetic finish, Firflex AP resin is applied to simulate a precast gutter.

Properties of fuel-resistant treatments

High-performance Firflex		Firbond-Pu	
Resin	Methacryla	Resin	Polyurethane
Application temperature	5oC –	Application temperature	10oC – 30oC
Mix duration/treatment time at 20oC	15-18 min	Mix duration/treatment time at 20oC	30-50 min
Drying time at 20oC	60-120 min	Drying time at 20oC	6-8 h
Tensile strength (ISO 527)	11.0 mPa	Tensile strength (ASTM)	30.45 kg/
Elastic modulus at 20oC	82.4 mPa	Elastic modulus at 20oC	8.17 kg/cm^2
CS-17 Taber abrading wheels, 1 kg,	75 mg	CS-17 Taber abrading wheels, 1 kg,	75 mg
Viscosity at 25oC	460 – 730	Viscosity at 25oC	-
Density at 25oC	1.30 g/cm^3	Density at 25oC	1.40 g/cm^3

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