MECHANISED WATERPROOFING

ETANPLAST®

High-rate waterproofing
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HIGH-RATE WATERPROOFING

Most waterproofing systems for engineering structure decks require a substantial amount of time-consuming manual application, which lengthens the process and makes it dependent on the weather.

Eurovia has revolutionised waterproofing by developing a reliable and very effective waterproofing process that is fully mechanised: Etanplast®.

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<th>KEY BENEFITS</th>
<th>KEY FIGURES</th>
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<td>The structure can be adapted to all types of traffic</td>
<td>Up to 5,000m² per day</td>
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<td>The process can be used in new construction and maintenance</td>
<td>A 30-year track record</td>
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<td>The process can be rapidly applied, which saves time</td>
<td>Dozens of major project references</td>
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<td>Saving across the board</td>
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Etanplast® is a multi-layer waterproofing / surface course for concrete engineering structure decks. The exclusive process is original in two ways: it uses very high-performance polymer-modified bituminous products and it can be mechanically laid using equipment specific to the roadworks industry.

**LASTING EFFECTIVENESS**

The use of modified binders for all layers ensures durable high performance.

The mechanised laying process ensures that the work is uniform.

**SAVING**

The elimination of manual operations ensures rapid laying (up to 5,000m² per day, depending on the structure to be waterproofed) and rapid re-trafficking.

The waterproofing and surface courses are laid by a single contractor, which saves considerable amounts of time and substantially simplifies the organisation of works.

These benefits, together with ongoing quality control set out in the specific procedures applied before and during Etanplast® application, ensure faultless waterproofing.
Etanplast® is a benchmark process that can be applied to all types of reinforced, pre-stressed, girder and arch segment engineering structures with concrete decks: bridges, viaducts, cut and cover tunnels, car parks, etc. Etanplast® can even be used on combined structures – concrete decks over metal structures – provided a membrane is first laid (at about 1.5kg/m²) over the primed substrate to avoid the effects of any cracks in the deck. The size of the structure to be waterproofed must of course be compatible with the use of high-speed laying machinery.

Following mechanical and/or high-pressure water cleaning of the deck, the various components of the Etanplast® complex are applied mechanically:

- Cold primer or special emulsion free of chlorine ions
- Microplast® fine-graded sand asphalt with Polybitume® highly modified bitumen. Applied in a nominal thickness of 25mm, it provides a uniform deck surface and the ideal substrate for the waterproofing layer. It is highly compact, thus contributing to the waterproofing system. The choice of binder ensures excellent rutting, fatigue and crack resistance.
- Thick 2.5kg/m² Polybitume® highly modified bitumen membrane which ensures the essential waterproofing function of the complex.
- Protective layer of 2.5 to 3kg/m² of agglomerated slate chips to ensure that the membrane can be trafficked while the surface course is being laid and to prevent the membrane binder from migrating into the upper asphalt mix.
- Surface course of at least 40mm thickness of 0/10mm or 0/14mm asphaltic concrete with modified binder.

The Etanplast® process is patented. A French Technical Opinion was issued for it in December 1996. It has been approved by the French Railways for use on road and rail bridges. Etanplast® was also approved by the British Board of Agrément (BBA) in 1995 and certified by the Quebec Ministry of Transport in 2004.

Etanplast® is a registered trademark.