

ELIMINATOR[®]

Cold, Liquid, Spray Applied Bridge Deck Waterproofing

Product Description

ELIMINATOR[®] is a high performance waterproofing membrane for the protection of concrete and steel decks based on Stirling Lloyd, now GCP's, unique ESSELAC[®] advanced resin technology and extensive experience in the development of coatings for specialist waterproofing. It cures rapidly to provide a tough, flexible seamless membrane. ELIMINATOR[®] has an unparalleled track record with thousands of structures waterproofed successfully throughout the world.

Product Uses

ELIMINATOR[®] provides a complete waterproofing system to protect the substrate from the corrosive effects of water, chloride ions, ASR, CO₂, freeze-thaw. Typical applications include:

- Concrete Bridge Decks
- Steel Bridge Decks
- Bridge Piers and Backwalls
- Bridge Service Ducts
- Culverts

Approvals

ELIMINATOR[®] has been approved and used on road and rail bridges by agencies worldwide, including:

- EOTA – ETA No.15/0362, Liquid Applied Bridge Deck Waterproofing, ETAG 033
- British Board of Agreement (UK) – HAPAS Certificates No.11/H169, 11/H170, for Highways England road bridges.
- Network Rail (UK) – Railway bridges, PADS Catalogue No. 028/970002.
- SNCF (France) – Rail bridges
- Belgian Board of Agreement (UBATC-ATG), Certificate No. 2280
- Czech Republic , Road, Rail & Highway Approval
- China
- Poland (IBDM)
- Middle East
- USA (including AREMA)
- Canada
- Sweden
- Turkey

Product Features

- Unparalleled track record
- Long and effective life
- Unaffected by high humidity, cures rapidly even at low temperatures, enabling year-round application
- Rapid application rates. Outputs in excess of 2,000m² per day.
- No critical overcoating time on any coat
- Crack bridging capability over wide temperature range
- Excellent chemical and abrasion resistance
- Excellent intercoat adhesion
- High bond strength to substrate
- High bond to asphalt surfacing
- Range of Bond/Tack Coats to suit asphalt mix design
- Unaffected by application of surfacing up to 250 °C.
- High resistance to ballast and backfill materials
- Able to carry load after 1 hour
- BBA HAPAS-approved on-site quality assurance programme, including Wet Film Thickness testing during application.
- Applied only by authorised and trained contractors

Technical Data

ELIMINATOR® is CE Marked under ETAG033 and EN 1504-2 Declaration of Performance is available on request.

PROPERTY	VALUE
Application Temperature Range	-10 °C to 50 °C
Standard Grade	0 °C to +30 °C
Tropical Grade	15 °C to 50 °C
Standard Grade with Arctic Additives	-10 °C to 0 °C
For temperatures below this, please consult Technical Services Department	
Typical Tensile Strength (BS903: A2: 1995, ISO37 Type 1: 1994; ASTM D412 Die C)	>10 MPa
Typical Elongation at Break (BS 903: A2: 1995, ISO 37 Type 1: 1994; ASTM - D412 Die C)	100-170%
Low Temperature Flexibility (Mandrel Test MOAT 27: 5.4.2 1983)	
Unaged	Pass at -25 °C
56 days heated at 70 °C	Pass at -20 °C
28 days water soak at 23 °C	Pass at -25 °C

Dynamic Crack Bridging @ -26 °C ASTM C836, 50 cycles	Pass
Dynamic Crack Bridging @ -10 °C, 23 °C, & 40 °C (UK Highways Agency:, BD47 Tested to 1mm)	Pass
Dynamic Crack Bridging @ -20 °C, EN 14224	Pass
Tear Strength, ISO 34-1, Method C, w/nick	>50N/mm
Heat Ageing: Tensile Strength & Elongation at Break, 36 months @ 80 °C, BS 903: A2: 1995, BS2782 equivalent	Excellent resistance to thermo-oxidative ageing
Hardness (2mm) Shore D, BS EN ISO 868:2003	>45
Resistance to Aggregate Indentation (UK Highways Agency: BD47)	Recovered thickness: 99.3% (avg.) Increase in chloride ions: 0%
Chisel Impact at 23° and 0 °C (UK Highways Agency: BD47)	No damage
Dynamic Ballast Resistance (Parts of Railtrack Specification RT/CE/S/041, Issue 2, 2 million cycles)	Pressure remained constant, without loss of water
Resistance to Asphalt Compaction (EN 14692)	Pass
Wear (Taber Abrasion, EN ISO 5470-1)	<800mg
Wear (Wheel Tracking, EN 12697-22)	0.5mm/million passes

¹ Property values range in accordance with normal statistical test variation. Please consult the relevant standard or contact our Technical Services Department for further advice.

Surface Preparation

The success of any waterproofing system is dependent on the thoroughness of the surface preparation.

Concrete

New concrete decks should be a minimum of seven days old. The substrate must be clean, dry and structurally sound. It must be free from laitance, oils and all other surface contaminants.

Where the use of a non-structural screed or a lightweight concrete substrate is proposed, contact Technical Services. These materials often have low cohesive strength or retain water in open pores.

Use METASET® ResiFilla Levelling & Repair compound for rapid repairs to damaged concrete.

Steel

On steel surfaces all rust, dirt and contamination should be removed by blast-cleaning to expose bright metal to achieve a surface cleanliness meeting ISO 8501-1:2007, Sa 2.5.

For compatibility with other construction materials or where additives, cement replacement or curing compounds have been used please consult the Technical Services Department.

Membrane

ELIMINATOR® is spray applied to give a minimum dry film thickness of 2mm, in either one or two colour-coded coats. The coverage rate will vary with surface texture.

Application

The resin components of the ELIMINATOR® system can be applied by airless spray or by hand, do not require heating, and include a BBA-approved Hand Grade membrane.

Primer

The substrate must be primed with an appropriate GCP primer prior to application of the ELIMINATOR® membrane. A choice of primers is available depending on the type of substrate and weather conditions. They are usually applied using spray, brush or roller. Please consult the appropriate datasheets.

Tack Coat/Bond Coat

A tack coat or bond coat must be applied to ELIMINATOR® when it is being used as a waterproofing membrane on road bridges underneath asphalt or macadam surfacing. A range of tack coats and bond coats is available depending upon the pavement specification().

Cleaning

All tools and equipment should be cleaned with acetone before the material is allowed to cure.

Packaging & Storage

Primer/Tack/Bond Coats: refer to separate datasheets

ELIMINATOR® Membrane: 48kg & 400kg kits

All components of the ELIMINATOR® system should be stored in cool, dry, protected conditions, out of direct sunlight and in accordance with the relevant site Health & Safety regulations. Storage temperature must not exceed 25°C. Do not store near naked flames or foodstuffs.

Stored in unopened containers, under the correct conditions, the components have a minimum shelf life of twelve months. If your product is more than twelve months old contact Technical Service before use.

Ancillaries

GCP produce a range of products to compliment the ELIMINATOR® system. These include:

- SENTINEL® Expansion Joints – a range of compatible expansion joint details.
- METASET® – a range of ESSELAC® resin based rapid curing levelling and repair compounds.
- METASET® Sealants – a range of flexible sealants for all joints and cracks.

Health & Safety

Please refer to our Safety Data Sheets for further information.

General Information

ELIMINATOR® is part of a wide range of specialist waterproofing, surfacing and repair materials manufactured and supplied by GCP. If you require any further information on this or any other of our products, please contact our Technical Services Department or visit www.gcpat.com.

Data is also available on the tensile bond strength and the shear bond strength of ELIMINATOR® to a variety of surfacing specifications from our Technical Services Department.



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