

# BRIDGEMASTER<sup>®</sup>

Combined Waterproofing & Surfacing

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## Product Description

BRIDGEMASTER<sup>®</sup> is a fast curing, waterproofing and skid resistant wearing course for the protection of bridge decks, where a long lasting, light weight and durable solution is required. Based on GCP Applied Technologies' unique ESSELAC<sup>®</sup> advanced resin technology and extensive experience in the development of infrastructure waterproofing and trafficked surfaces, BRIDGEMASTER<sup>®</sup> comprises a flexible resin screed with an aggregate overscatter and durable sealer coat.

## Product Uses

BRIDGEMASTER<sup>®</sup> can be used to waterproof and surface a wide variety of structures operating under a range of climatic environments and traffic conditions, from light duty pedestrian walkways to major bridges and viaducts subject to heavy vehicular traffic. Suitable for application to concrete and steel.

BRIDGEMASTER<sup>®</sup> is available in two standard grades:

- PD Grade – For pedestrian areas. A 4mm screed plus aggregate and sealer.
- HD Grade – For vehicular trafficked areas. A 6mm screed plus aggregate and sealer.

BRIDGEMASTER<sup>®</sup> is designed for use on gradients up to 1 in 8:

- Standard Grade: 1 in 12 (8%; 5°; 5% of 90°)
- Ramp Grade: 1 in 8 (12.5%; 7°; 8% of 90°)

Typical applications include:

- Road Bridges
- Bascule Bridges
- Swing Bridges
- Bridges with reduced load limits
- Roll-on/off Ramps
- Bus stopping zones
- Marine Structures
- Loading Bays
- Footbridges
- Walkways
- Steps
- Stadium Spectator Areas

## Product Features

- Long and effective life
- Waterproofing
- High friction surface
- Durable
- Rapid cure even at low temperatures
- Lightweight
- Aids composite action
- High bond strength to substrate
- High mechanical strength
- Can be tailored to individual project requirements
- Able to carry load after 1 hour
- On site Quality Assurance programme
- Applied only by authorised and trained contractors

## Technical Data

PROPERTY <sup>1</sup>	VALUE
Application Temperature Range	-5 °C to 45 °C
Tropical Grade	20 °C to 45 °C
Summer Grade	15 °C to 35 °C
Winter Grade	0 °C to 10 °C
With Cold Cure Additive	-5 °C to 0 °C

Note: Summer and Winter Grades utilise the same resin but are supplied with different size preweighed bags of BPO Powder Catalyst.

## Surface Preparation

All surface coating systems are dependent on the quality of surface preparation All substrates must be clean, dry and structurally sound, free from laitance, oils and other surface contaminants.

## Concrete

New concrete decks should be a minimum of fourteen days old. If additives, cement replacement or curing agents have been used please contact Technical Service.

All concrete decks must be prepared by suitable mechanical means such as vacuum blasting to provide a sound surface. Use METASET® ResiFilla Repair compound for rapid repairs to damaged concrete.

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.

## 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 consult Technical Service.

## Application

### Primer

The substrate must be primed with an appropriate GCP primer prior to application of the BRIDGEMASTER® screed.

- PAB1, PAR1 or PA1 Primer for Concrete substrates
- ZED S94 Primer for Steel substrates.

Please refer to the relevant primer datasheet for further information.

## BRIDGEMASTER®

BRIDGEMASTER® is a three-part screed, supplied in pre-weighed quantities ready for on-site mixing. Apply by pouring and spreading using a toothed rake or trowel, followed by a spiked roller.

Once rolled the screed is blinded with dry aggregate.

Once the screed has cured, excess aggregate should be removed.

A coat of Sealer Matt is then applied to enhance aggregate retention and help maintain a clean surface. The system can be trafficked once the Sealer Matt has fully cured.

## Coverage

THICKNESS	BINDER	AGGREGATE	SEALER
6 mm	12.6 kg/m <sup>2</sup>	4-7 kg/m <sup>2</sup>	0.3-0.5 kg/m <sup>2</sup>
		size 1.0-3.0mm	
4 mm	8.4 kg/m <sup>2</sup>	4-7 kg/m <sup>2</sup>	0.3-0.5 kg/m <sup>2</sup>
		size 0.7-1.4mm	

Aggregate and sealer consumption will vary depending upon the size of aggregate used.

## Aggregates & Colour

The current aggregates acceptable for use are Chinese Bauxite, Guyanan Bauxite and Green Granite. Use of any other aggregate is prohibited unless approval has been granted by Technical Service. Please see our Aggregate Price List for further details.

The BRIDGEMASTER® resin is available in Black or Neutral colours. For uniformity of appearance of the finished system, the closest colour to the proposed Aggregate colour should be ordered.

## Cleaning

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

## Packaging & Storage

Primer: 5 & 20kg kits

Screed: kit including 3.95kg Resin pack + 20kg powder pack (BPO powder catalyst excluded)

Aggregate: 25kg bags (typically)

Sealer: Sealer Matt 5 & 20 kg pack

BPO: 150g & 600g bags

All components of the BRIDGEMASTER® system should be stored in cool, dry, protected conditions, out of direct sunlight and in accordance with the relevant Health & Safety regulations. Storage temperatures 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 12 months. If your product is more than 12 months old, contact Technical Service before use.

## Ancillaries

GCP produces a range of products to compliment the BRIDGEMASTER® system. These include:

- METASET® Sealants, ResiFilla Repair Compounds – fast curing compatible sealants and mortars available for horizontal and vertical work.
- SAFETRACK® LM – a flexible, bright, abrasion resistant line marking system available in a range of colours

## Health & Safety

Please refer to our Safety Data Sheets for further information.

## General Information

BRIDGEMASTER® is one of a wide range of specialist waterproofing, surfacing and repair materials manufactured and supplied by GCP Applied Technologies. If you require any further information on this or any other of our products, please contact our Technical Service or visit [www.gcpat.com](http://www.gcpat.com).



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Last Updated: 2023-07-07

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