

SAFETRACK® HFS

Rapid Cure, Cold-Applied High Friction Surfacing

Description

SAFETRACK® HFS is a liquid applied, rapid cure high friction surfacing system combining Stirling Lloyd, now GCP Applied Technologies' advanced ESSELAC® technology and experience in the development of high performance coatings for the Highways industry. The system consists of a tough resin binder and an aggregate overscatter, and has the advantage of hand or machine application.

SAFETRACK® HFS is a Type 1 certified BBA/HAPAS High Friction Surfacing System that also conforms to Clause 924 of the UK Specification for Highway Works (March 1998) for Resin Based High Skid Resistant Surface Treatments.¹

¹ The BBA certification currently only applies to Safetrack® HFS Hand Grade. Machine Grade Safetrack® HFS is currently undergoing final approval. Please contact GCP for further information.

Uses

SAFETRACK® HFS is designed to provide greater safety for roads in a wide variety of situations. In addition, this unique thermoset resin system provides greater longevity in service than other high friction surfacing types, and builds on over 20 years of successful high friction surfacing applications.

The system can be supplied in a range of colours with specific high Polished Stone Value (PSV) calcined bauxite aggregates to provide the required skid resistance. It can be utilised also in conjunction with coloured aggregates with coloured aggregates for colour demarcation purposes. Typical applications include:

- High friction surfacing
- Deceleration approach areas
- Traffic calming / Gateways
- Fast and tight-radius bends
- Accident remedial schemes
- Traffic segregation
- Bus lanes

Features

- Quick, easy and economical to apply
- Excellent adhesion to a variety of substrates
- Cold applied
- Good long term ageing properties
- Excellent abrasion, impact and chemical resistance
- The speed of application and cure ensures the minimum of disruption, essential on busy routes.
- Machine and hand application
- Applied only by authorised and trained contractors

Technical Data

Property	Value
Application Temperature Range	-5 to +50°C
Typical Drive-On Time	<60 minutes
Tensile Adhesion requirement	
Asphalt	>0.5MPa
Concrete	>1MPa

Surface Preparation

It should be stressed that the success of any surfacing system is dependent on the thoroughness of the surface preparation.

All substrates must be clean, dry and structurally sound. They must be free from laitance, oils and other surface contaminants.

Asphalt

The type of asphalt should be confirmed in advance of installation, as some asphalts will not be suitable, such as surface dressings, micro-surfacing, slurry-sealing, line markings, weak asphalts and macadams. See Limitations, below. Tensile adhesion tests must be carried out on suitable asphalts prior to SAFETRACK® HFS installation. SAFETRACK® HFS may be applied once the required tensile adhesion of a minimum 0.5N/mm² has been achieved.

Heavily textured or porous asphalt surfaces may require levelling with METASET® Scratch Coat to reduce SAFETRACK® HFS consumption rates.

Note: Guidance on the Specification for Highway Works - NG924 High Friction Surface states "...on occasion cracking which extends into the wearing course can be induced by the application of high friction surfacing. The risk of this occurring is much greater when the wearing course is newly applied and un-trafficked. Provided the high friction surfacing is well bonded to the substrate and with the agreement of the Overseeing organisation, the cracking may be sealed using a suitable epoxy or similar resin and the high friction surfacing made good."

Concrete

New concrete surfaces should be a minimum of fourteen days old. If additives, cement replacement or curing agents have been used please contact our Customer Services Department.

All concrete substrates must be prepared by suitable mechanical means¹ such as vacuum-blasting to provide a sound surface.

Where the use of a non-structural screed or a lightweight concrete substrate is proposed, please seek advice from our Technical Services Department, as these materials often have low cohesive strength or retain water in open pores.

¹ Water Jetting is not an acceptable method of mechanical preparation.

Application

Application training is provided by GCP Applied Technologies and application should be in accordance with our detailed Application Guidelines which are available to our Authorised Contractors.

Primer

When applying SAFETRACK® HFS resin binder directly to concrete or asphalt surfaces, no primer is required.

For concrete surfaces, when applying METASET® Scratch Coat (see METASET® Scratch Coat datasheet) the concrete should be primed with PAR1 or PA1 primer.

For asphalt surfaces, when applying METASET® Scratch Coat (see METASET® Scratch Coat datasheet) no primer is required.

Binder

Hand Grade comprises a single steel container of binder resin plus BPO catalyst (either powder or liquid), and, where required, a bag of pigment powder

Machine Grade comprises two steel containers of binder resin (Parts A and B), plus BPO catalyst (either powder or liquid). The Part B resin is pre-pigmented Grey to assist thorough mixing with the Part A, and when mixed produces a dark buff colour, suitable for use with approved Bauxites,

Before the binder is allowed to gel it must be completely 'blinded' with dry aggregate ensuring no bare patches of resin are visible.

Limitations

Do not apply SAFETRACK® HFS over surface dressings, micro-surfacing, slurry-sealing, line markings, and weak substrates such as asphalt concrete with high penetration grade binders, temporary or deferred-set macadams.

Do not apply SAFETRACK® HFS on to ramps with a gradient in excess of 1 in 8.

Coverage

Binder ²	2.7kg/m ²
1-3mm Aggregate	8kg/m ²

The coverage rates shown are based on a 1.0 mm texture depth and typical substrate rather than being minimum coverage rates. They may vary with surface texture and porosity. The coverage rate must be checked regularly during application by calculating the quantity of the material used against the area treated.

METASET® Scratch Coat is available for use on coarse macro textures, porous and new asphalt to reduce consumption.

Aggregates & Colour

All aggregates must be clean, dry and free from excessive dust. The current suitable calcined bauxite aggregates are 1-3mm Chinese, Guyanan or Indian Bauxite from designated suppliers. A list of these can be obtained from GCP Applied Technologies.

Guyanan Bauxite is supplied in Dark Grey whilst Chinese Bauxite is supplied in its natural colour of buff yellow.

The SAFETRACK® HFS binder resin can also be pigmented on site to match the aggregate, if required. Dark Grey, Tile Red and Chrome Green pigment is available for on-site addition.

Cleaning

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

Packaging & Storage

SAFETRACK® HFS Binder:

- Hand Grade resin is supplied in kits of 25kg and 200kg.
- Machine Grade is supplied in 50kg and 400kg kits (Part A + Part B + BPO)
- Powder BPO catalyst is supplied, depending on kit size, in 250g or 2.5kg bags, or 25kg boxes.
- Liquid BPO catalyst is supplied in 5kg jerricans
- The dosage of Powder and Liquid BPO for both Hand and Machine grades varies according to temperature.
- The aggregate is supplied dried and bagged in 25kg sacks.
- The pigment (for Hand Grade only) is supplied in a 6kg box, containing 100 x 60g bags. When pigmenting the resin, one bag is required per 25kg kit.

All components of the SAFETRACK® HFS 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 twelve months. If your product is more than twelve months old you must contact GCP Applied Technologies before use.

Health & Safety

Please refer to our SDS for further information.

General Information

SAFETRACK® HFS is just one of a wide range of specialist surfacing, waterproofing and repair materials manufactured and supplied by GCP Applied Technologies. If you require any further information, please contact our Area Sales Manager or visit www.gcpat.com.

gcpat.com | Technical Services, Manchester, UK (+44 (0) 1565 633111)

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the end user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

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Last Updated: 2021-08-10

