



 **MJF
GROUP**

Project managed & installed by...

vebrodeck at South Western Railway Traincare, UK

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PROJECT SHOWCASE

all aboard! impressive transformation on track at SWR traincare depots

Spanning four major traincare depots, 20 weeks, 100 days on site and over 25,000 square metres of liquid-applied seamless resin flooring, linemarking and hatching – the refurbishment work carried out for South Western Railway (SWR) is a testament to the commercial partnership that Vebro Polymers and MJF Specialist Flooring have built.

The project is an excellent example of reactive programming and adaptability on behalf of the project management team at MJF, who, working on a live-track environment like no other they had previously encountered, constantly juggled working areas, in-house operatives, and unexpected events to ensure that works were completed without delay.

Keeping passengers and freight on the move, on a punctual and reliable railway, has never been more topical. While it has been driver strike action that has dominated the news in terms of disruption to the network over recent months, there are several other, lesser-known, but critical services at play that ordinarily minimise disturbance to schedules and ensure the smooth running of the tracks – including traincare and maintenance depots.

Train depots are large facilities or yards where trains are stabled adjacent to the main lines. Trains are parked at depots overnight, where routine cleaning and maintenance takes place at what are often 24-hour operational facilities. These depots have the infrastructure in place to maintain rail rakes with necessary facilities such as stabling lines, inspection pits and workshops for overhaul, unscheduled maintenance including major repairs, wheel profiling, heavy interior / under frame / roof cleaning for the rolling stock operational on the corridor.

In essence traincare depots are critical to keeping the rail network on track.

SWR manages 187 stations alongside 10 traincare depots and stabling sidings located across London and south west England. These depots are used for servicing and maintaining the SWR fleet, which currently includes the Express Sprinter, South Western Turbo and aptly named Desiro City.



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Project
management
courtesy of:

 MJFGROUP



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The refurbishment for SWR spans four major traincare depots, 20 weeks, 100 days on site and over 25,000 square metres of liquid-applied seamless resin flooring, linemarking and hatching.



The client contacted Vebro after receiving a direct referral from a sister company attesting not only to the quality of Vebro's materials but more importantly the technical expertise offered by Vebro's Specification team, and the hands-on approach taken to guide customers, in this case, in-house procurement / project managers, through every detail of the project – no matter how small.

Having had a previously poor experience with seamless resin coatings, which due to insufficient advice at specification stage had resulted in spectacular failure of the coating across many of the traincare depots, this diligent and open approach was exactly what was needed for the client to regain confidence in the material, application methods and resulting finish.

At the time of approaching Vebro, there was no specification in mind, just the urgent need to refurbish the facilities by replacing the existing coatings. The major concern from the project manager was that SWR had previously used resin and a 'so-called' specialist contractor who had consulted on the material, only to be left extremely disappointed with the outcome.

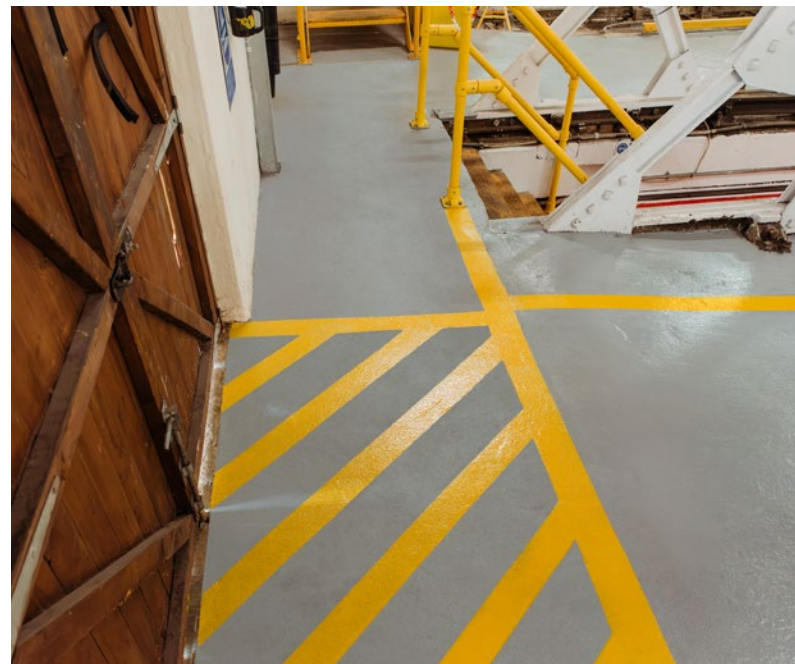
As a result, Vebro Polymers visited each site to gain a better understanding of the specific requirements, substrate condition and the environment in which the new system would be required to perform. Having visited each site, a project specific specification and photographic report was generated that would be used throughout the tender process.

From the investigations, it was determined that the resin used previously was nothing more than a thin-film coating with both insufficient substrate preparation and insufficient physical properties to withstanding the daily service criteria both discussed with SWR and witnessed first-hand on site.

To ensure a fit-for-purpose system, and understanding the grave issues that had resulted from a low-cost option on previous works, SWR showed no hesitation in selecting the package supported by a full product warranty from Vebro.

Client: South Western Railway

Location: Clapham, Farnham, Fratton & Bournemouth, UK



Universal linemarking legend

Fire Safety Markings

Signal Red
RAL 3001

First Aid Markings

Leaf Green
RAL 6002

Hatched Areas

Safety Yellow
BS 4800 08E51

spotlight on the floor

Several Vebro Polymers solutions were used across the four SWR sites, all of which were determined through a detailed site survey and evaluation process, in which the specific use of the area in question, service criteria, level of traffic and realistic life expectancy requirements of the floor within the parameters of budget were all consulted.

The client selected a Vebro Polymers resin flooring system for the material's durability and longevity, but primarily having regained confidence in the material resulting from the technical support received from Vebro prior to tender.

SWR was particularly impressed by Vebro and MJF's combined track record on working together on large, phased projects as well as the two companies' project rollcall within the rail industry, having successfully completed projects elsewhere including Nexus Tyne & Wear Metro.

After a successful tender process, MJF were contracted to project manage and carry out the entire install across all four depots, this involved the removal of existing coatings, all surface preparation and the phased installation of all agreed screed, epoxy flooring systems, MMA flooring systems, wall coatings and finally linemarking and hatching.

Given the extreme nature of the environments where crews would be working, mandatory Track Safety Training had to be undertaken as part of the contract to enable MJF's skilled in-house team to work safely on the rail network.

Railway and Track Safety training courses provide companies and individual contractors with the skills, knowledge, and certification to ensure that rail works are carried out efficiently and safely as well as in full compliance with Network Rail Standards.

All sites were subject to extensive site survey by both the manufacturer and specialist applicator prior to commencing works, and although the slabs in some instances were of very poor condition, this had been accounted for, with substantial in-fill, deep-crack repair and in instances specialist levelling screeds built into the specification.

All sites were subject to surface preparation by (heavy duty triple headed) HTC diamond grinding equipment with suitable dust extraction, to remove existing coatings and prepare the underlying concrete ahead of installing the specified resin systems. Hand tools were used for intricate or hard to reach areas.

All covered walkways, or 'roads' as they are referred to by depot staff that run between tracks, as well as the sunken floors located in inspection pits were specified with the **vebrodeck** ID system.

This system incorporates a 1.0 mm polyurethane scratch coat damp proof primer (**vebro** PU SC DPM) followed by sandwich layers of solvent-free epoxy coating (**vebro** EP Universal) binding and sealing a full quartz broadcast for enhanced traction and slip resistance underfoot. This was installed in RAL 7037 Dusty Grey. Inspection pit walls were twice coated with a water-based, gloss-finish, epoxy sealer in RAL 9010 Pure White.

Semi-exposed ramps, which are located at the end of each of the sheds, were specified with the **vebrodeck** MMA ED system to provide additional safeguards against the elements and enhanced UV resistance as well as ensuring the material can be installed within tight weather windows.

This system incorporates an MMA damp proof primer (**vebro** MMA Damp Primer), flexible MMA membrane (**vebro** MMA Membrane), which receives broadcast aggregate sealed with an aliphatic MMA topcoat (**vebrodeck** MMA Topcoat) – again in RAL 7037 Dusty Grey to seamlessly complement the adjacent epoxy surface.

All linemarking, cross-hatching and demarcation was meticulously completed using the **vebro** EP Universal LM product – a solvent-free epoxy line-marking paint incorporating a thickening agent to prevent seepage under stencils and tape. A universal legend was used across the sites to denote different levels of danger / hazard.

At Clapham Traincare Depot, an additional screed requirement to repair the failing concrete substrate also included the use of **vebro**screed Max – a liquid admixture for semi-dry screeds which has been specifically developed to provide rapid drying times, high early and ultimate compressive and flexural strengths in bonded, unbonded and floating screeds.

Here, tarmac had been used to infill deep cracks and voids in the concrete to no success, and as such a **vebro**screed Max screed was recommended to repair the substrate prior to the installation of the above-mentioned wearing systems.

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Resin applicator: MJF Specialist Flooring

Material supplier: Vebro Polymers

Total floor area: 25,000 m²



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refurbishment on the South Western Railway network

The refurbishment works involved four sites across the South Western Railway network, which features a total of over 200 stations, facilitating 235 million passenger journeys per calendar year.



Farnham Traincare Depot

Farnham Traincare Depot, in Weydon Lane, was opened by the Southern Railway at the time of the electrification of the Portsmouth and Alton lines in 1937. It was refurbished for the introduction of modern units when slam-door trains were replaced circa 2005. At the same time, disused quarry and ballast dump sidings behind the carriage shed were removed and several outdoor sidings were laid for overnight storage and servicing of units.

Bournemouth Traincare Depot

Bournemouth Traincare Depot is southwest of Bournemouth station, occupying the approach to the former Bournemouth West station. Until their withdrawal in February 2007, the depot was home to the Class 442 (5-VES) Wessex Electrics and became so again during their reintroduction from 2019 to 2021. The branch turns off at Branksome station where trains can be seen stopping at platform 2 and reversing into the depot.

Fratton Traincare Depot

Fratton Traincare Depot is located on central Portsea Island, alongside Fratton station. It has a carriage washer and is the fuelling point for the 158s and 159s. The depot has a train shed with two pitted roads for maintenance of rolling stock. Class 444 and 450 units berth overnight. Stabling sidings and bay platforms at Portsmouth & Southsea station are co-ordinated from the depot.

Clapham Junction Traincare Depot

Clapham Traincare depot, in Plough Lane, Wandsworth is a stabling line and fuelling station that carries out light maintenance & cleaning of the trains & carriages including tanking of toilet facilities. All of SWR's fleet rolls through the yard including the 158s/159s, 444s, 450s, 455s and 458s.

working together...

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**South Western
Railway**

vebro polymers.com

Please note: the information in this guide is subject to change and the most recent technical data should be sought for accurate, up-to-date product or system information. Errors & omissions excepted. The applied colours may differ from the examples shown within this guide. Actual samples should always be viewed before making a final decision, especially if colour accuracy or matching is key to your decision.

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vebrodeck at South Western Railway Traincare, UK Project Showcase [Vebro Polymers] 19/09/23