

Ten years after...

... AND STILL GOING STRONG! JUST BECAUSE A CAB PASSED ROPS AND FOPS TESTS A DECADE AGO DOESN'T MEAN IT WILL STILL PROVIDE THE DESIRED SAFETY LEVELS. NOT UNLESS INTERNAL CORROSION HAS BEEN KEPT AT BAY WITH AUTOPHORETIC COATING, THAT IS...

▷ What happens to a forklift cab or ROPS/FOPS frame as the environment and condensation corrodes it from the inside out? Is it still really as strong as the day it passed ROPS/FOPS testing? Not unless the safety structure has internal corrosion protection. Many do not – and there is no excuse.

ABT is a pioneer in Autophoretic internal corrosion protection for cabs, chassis and roll bars, and has not only over 14 years' experience of the chemistry used to autophoretically coat the internals of complex steel fabrications, but also the expertise to vent and drain hollow structures to ensure that the PVDC resin film that bonds to Fe molecules fully coats internal structures to provide both external and internal corrosion protection.

The technology

As a PVDC resin-based coating, Autophoretic Coating Chemicals (ACC) provide considerable productivity and environmental benefits while delivering low cure and far superior corrosion resistance on ferrous substrates, internally as well as externally.

In terms of performance, the ACC process provides a low bake (<105°C) coating that will only cover steel surfaces. This enables composite substrates to be processed, maintaining the physical and mechanical properties of other materials such as plastics, rubber and even hidden lubricated mechanisms.

The ACC process can withstand up to 1,000 hours of salt-spray corrosion testing and demonstrates



ABT'S facility at Ross-on-Wye is the largest in Britain and one of the largest in Europe

superior flexibility and impact resistance. The ACC plant at ABT's facility in Ross-on-Wye, UK, consists of 10 immersion tanks and a curing oven. All products to be processed are manually placed onto racks or

frames in an orientation that allows them to drain between process tanks.

Once loaded onto the transporter that lifts and moves the racks from tank to tank, the process is microprocessor controlled. Tanks 1 to 7 are cleaning tanks comprising alkali cleaners, acid descaler and clean water rinses. Tanks 8 to 10 contain the paint coating and chemical reaction tanks prior to low bake heat curing in the three-stage oven.

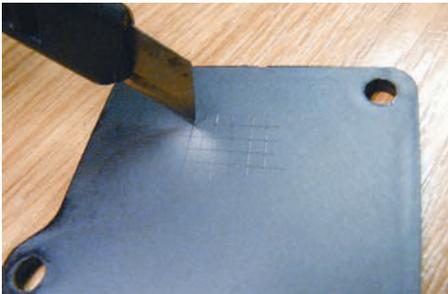
The facts

As the modern equivalent of E-coat Black, this corrosion-resistant polymer is an ideal coating for ferrous components and provides an excellent primer for topcoat finishes. Highly corrosion resistant, it is capable of exceeding 1,000 hours of salt spray to ASTM B117 and BS 3900, and boasts exceptional physical properties, providing 6H pencil hardness and 0-T flexibility.

A computer-controlled transporter system gives accurate process control, and a huge capacity product

In 1999, the company invested more than £1m in its Autophoretic paint plant, to provide customers with a truly world-class product





Cross Hatch testing ISO 2409 and ASTM D3359



envelope of 3.2x2x2m can be accommodated. The immersion process provides a uniform coating (to a minimum of 18µm) with no limitations – even on internal and external corners.

The low curing temperature of <105°C means that the Autophoretic coating can be applied to cabs, chassis and suspension mountings (including rubber bushes, and seat slides in the assembled state). The

optional in-process cleaning also enables welded assemblies to be effectively cleaned by an in-process acid pickle.

This environmentally compliant process uses water-based paint to ensure zero volatile organic compound (VOC) emissions. Global acceptance is therefore high, with many factories in Europe and the USA using this coating for vehicle underbody parts,

seat frames/tracks, shock absorbers, springs and cabinet slides, and so on.

As a result, the coating provides high resistance to organic solvents and fluids, including brake fluid, petrol and diesel. **ALT**

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