



European trams receive a durable and lightweight make-over

BACKGROUND

Pyrotek has had proven success in providing noise control solutions to the transport industry, specifically the rail sector in Europe. Pyrotek has now secured multiple tram projects with EKOVA ELECTRIC, European manufacturer of electric public transport vehicles. With nearly 100 years' history in refurbishment, overhaul, modernisation and production, EKOVA's focus is on trams, LRV, trolleybuses and electric buses. With their own engineering, design and R&D teams, EKOVA vehicles are used in the Czech Republic and globally - Russia, Germany, Scandinavia, the USA and other regions. Pyrotek won two contracts to improve structural protection and so reduce structural fatigue of EKOVA trams. One was the modernisation of 14 trams for TLT, the transport operator of the city of Tallinn, involving the most common tram model in the capital of Estonia. The other was the modernization of 65 Sirio M32 tram units for Götteborg, Sweden. EKOVA was initially searching for a product that would serve as protection for the tram underbody and structure, but Pyrotek was able to provide more than that.

DEVELOPING A SOLUTION



Pyrotek's water-based vibration damping compound, Decidamp SP500, was selected as an easy-to-apply, cost-effective and environmentally friendly solution for the refurbishing process. As a coating specifically developed for weight sensitive rail solutions, it is 30% lighter than other products typically used in these applications. With high durability, weather, stone and chip resistance, it was ideal to use to protect the tram underbodies. Being suitable for both interior and exterior use, it was additionally used on interior linings of the tram shells as well. Its compliance to the latest EN45545 regulations together with its conformity to the R7 and R10 fire regulations made it the obvious solution.



City of Tallinn, Estonia, tram with Decidamp SP500 exterior and interior treatment



Sirio M32 tram in Götteborg, Sweden - modernized by EKOVA with Pyrotek's Decidamp SP500 underbody treatment.

Working together with EKOVA, Pyrotek global R&D team developed a solution satisfying customer requirements - adherence of the compound to the specified material surface together with the EN45545 compliance, which allowed for a lighter, water-resistant flooring system to be used as a substitute for heavier systems. The team went beyond delivering a product meeting all customer criteria, including custom colouring the coating and on-site technical support on product application. A service offered by no other competitor.

RESULTS

EKOVA was extremely satisfied with the result. The trams received not only a durable protective coating bringing major weight savings on every tram unit, but also exceptional acoustic improvement of structures exposed to vibration and impact sound. The goal of reducing structural fatigue and offering passengers a much greater comfort during their travels was achieved.

EKOVA's positive experience with Pyrotek and the support they were given during both projects resulted in potential further business cooperation between the two companies and Decidamp SP500 is currently being tested on two prototypes of EKOVA's manufacture of electric buses.



Decidamp SP500 serves as a durable protective coating for the interior and exterior, simultaneously as a damping compound to reduce structural fatigue in rail applications.

