

Complete Composite Systems (CCS)



ARCOSYSTEM® cable troughing installed trackside via ground-mounted posts

ARCOSYSTEM® – the rail industry’s leading elevated cable containment system – has reinforced its reputation for sustainability by gaining major environmental certification.

Complete Composite Systems (CCS) is delighted to announce that ARCOSYSTEM® has officially achieved Environmental Product Declaration (EPD) verification. An EPD is a formal document that demonstrates a firm commitment to environmental responsibility and transparency. It is based on a detailed and independently verified life cycle assessment (LCA)

that determines the environmental impact, such as of greenhouse gas emissions, of a certain product throughout its entire lifespan.

There were two LCAs conducted for ARCOSYSTEM®; one relating to the installation of the system via ground-mounted sigma posts, and the other based on attaching the flexible ARCO cable troughing to bridges and walls.

These LCAs were conducted under what is specified as a ‘cradle to gate with options’ boundary. This covers the extraction/cultivation of raw materials, the processing of raw materials, the production of the finished product



ARCOSYSTEM® safely fastened to the side of a bridge in order to maintain the cable run

(including packaging), all transportation and waste stages throughout the supply chain, and the end-of-life of the product.

This robust study was conducted in line with ISO 14040/44, ISO 14025 and EN 15804 by the independent consultancy Fishwick Environmental Ltd. It was then critically reviewed by an accredited independent verifier, and published by the **International EDP System**, the world's first and longest-running

operational EPD programme, founded in Sweden in 1998.

This important milestone is not just a stamp of approval – the certification serves as a quantitative environmental profile of ARCOSYSTEM®'s creation, manufacturing, distribution and end-of-life. The product-specific results allow contractors, specifiers, engineers, clients and other stakeholders to view impartial evidence of the environmental profile of ARCO, and invites comparisons with similar products that also have a published EPD.

Achieving EPD verification also makes CCS's decarbonisation measures for ARCOSYSTEM® transparent to prospective customers who are focused on sustainability and want to work with companies who take their environmental responsibilities seriously.

It provides further confidence that ARCOSYSTEM® is designed with environmental impact in mind, while maintaining the highest levels of efficiency and long-term durability. It also illustrates that ARCOSYSTEM® is not just the most innovative solution for elevated cable containment on the market, but also one of the most sustainable.



SizeZero®, the narrowest cell size of ARCOSYSTEM® troughing, clamped to bridge railings with the enclosed cables showing prior to lid fitting

Key features and benefits of ARCOSYSTEM® :

- An elevated cable management system that safely encloses and protects high-voltage and digital communication cables for long runs alongside railway tracks
- Troughing and lids are manufactured from pultruded glass fibre-reinforced polymers (FRP/GRP) which excel in structural and load-bearing performance and offer strong resistance to heat, water, corrosion and UV rays compared to more common materials, thereby providing a long lifespan and sustainability
- Composite construction means the troughing is lightweight, allowing for flexibility when installing along a challenging trackside route as height and directional changes can be accommodated with ease
- Supported by a bespoke range of laser-cut galvanised steel brackets, the troughing can be post-mounted, wall-hung or fixed to a variety of trackside structures such as bridges, railings, rock faces, noise barriers or hillside slopes
- Troughing can span up to 6m between support posts, making installation quicker and more cost-effective than traditional ground-based systems
- Twin-walled design of the troughing enables the system to resist lateral forces from embankment subsidence, high snow loads and wind effects from high-speed trains
- Constant working temperature range from -40°C to +80°C
- Carries cable loads of up to 90kg/m
- Troughing available in different cell sizes to accommodate a range of cable load requirements or spatial restrictions

The **sigma post-mounted EPD for ARCOSYSTEM®** can be viewed [here](#), and the **bridges and wall-mounted version is available here**.

CCS has previously released **EPDs for two of its other products**, **TouchSAFE composite palisade fencing** and our **composite ballast boards**.



ARCOSYSTEM® safely attached to a slanting concrete wall with the aid of the system's supporting range of bespoke steel bracketry

Contact the experienced **technical experts at Complete Composite Systems**, the exclusive UK distributor of ARCOSYSTEM®, for enquiries about your rail cable containment requirements.

Complete Composite Systems Ltd



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The exclusive UK rail stockist of ARCOSYSTEM® is Scott Parnell:



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ARCOSYSTEM® is manufactured by CCS's Swiss partners, **Castioni Kabelführungssysteme GmbH**



ARCOSYSTEM® — The Rail Industry's Benchmark Elevated Cable Management System



The flexible ARCOSYSTEM® troughing can be easily adjusted for height and directional changes during a long run



The composite troughing can be fastened to a variety of trackside structures, such as ballast boards and railings here during an installation in Germany's Black Forest



The lightweight construction of the troughing allows ARCOSYSTEM® to be fitted to hillside slopes



The twin-walled design of the troughing enables the system to resist lateral forces such as wind effects from high-speed trains

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ARCOSYSTEM® is manufactured by:

