



Blue Generation[®] Plating for the Rail Market

Ruggedized RoHS compliant plating delivering a best-in-class combination of extreme durability, conductivity and shielding performance.

The challenge

Railway operators around the world are continually seeking to reduce the cost of ownership and extend the life of their rolling stock. Regular exposure to extreme conditions on snow-covered tracks or to sweltering hot summers requires operators to choose connectors that are robust and highly reliable to ensure their services run safely, continuously and on time year after year. Corrosion is a frequent issue which can lead to damage and unplanned downtime. Effective plating is therefore a pre-requisite. Cadmium plating had provided the required protection and resistance to corrosion that rail connectors require, but environmental laws have restricted its use. In order to secure the cost-effective operation of their fleet, operators now need solutions that are both RoHS compliant and resistant to extreme environmental conditions.

The solution

Engineers at ITT's Connector business developed Blue Generation[®] plating that delivers both RoHS and REACH compliance with outstanding performance. This zinc nickel plating protects against the severe environments seen in rail applications - providing resistance to 500 hours of salt spray and withstanding temperatures from -55° C to +125° C. Blue Generation[®] plating also delivers exceptional shielding and conductivity performance.

The Veam Difference:

- Proven rail expertise
- Global reach with local support
- A true innovator in harsh environment interconnects
- A leader in RoHS compliant solutions
- A business partner with unique customization capability

Features:

- Zinc nickel plating chemistry
- RoHS compliant
- Salt spray resistance: 500 hours
- Shielding effect acc. VG 95373: >70 dB
- Conductivity: <10 mOhm
- Performance tested to VG95234 on Veam FRCIR and VBN
- Compatible with other Veam standard platings



Applications



Blue Generation® Plating is compatible with:



FRCIR



- For signal and power applications
- Available with 1-159 pole, 256 layouts
- High shock & vibration resistance
- IP 67 environmental resistant
- Flame retardant (EN45545 - NFFA 130)
- Up to 2,000 mating cycles
- RoHS & REACH compliant

VBN



- Available with 4-70 poles, 15 layouts
- Compliant to mass transit specification NF F 61-030
- Approved & qualified by SNCF & RATP
- Flame retardant UL94V-0 & NFF thermoplastic insert
- Easy contact insertion and extraction
- Up to 2,000 mating cycles
- RoHS and REACH compliant
- IP 67 environmental resistant

FRCIR M12



- Available in 1 way and 7 way versions
- Four types of contacts: Coax, 2, 4, and 8 pole
- Performance up to category 7A (frequency up to 1GHz)
- Supports communication speed up to 10 Gbps
- IP 67 environmental resistant
- Flame retardant (EN 45545 HL3 – NFFA 130)

Power Plates



- 2-3-4 pole versions
- Highly customizable
- Crimp contact up to 240 sqmm
- Contacts with multi-point bands ensure low contact resistance & performance up to 700A (max.)
- Operating voltage according to EN 5012-1
- Fast and easy coupling system with two screws or with latch mechanism
- IP 67 environmental resistant

Why ITT

ITT is a focused multi-industrial company that designs and manufactures highly engineered critical components and customized technology solutions.

ITT's Veam brand is a leading global manufacturer of interconnect solutions for transport applications. Veam connectors make it possible to transfer data, signal and power in an increasingly interconnected world, helping to protect the world's people and products in transit so they can get to where they're going safely and on time.

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