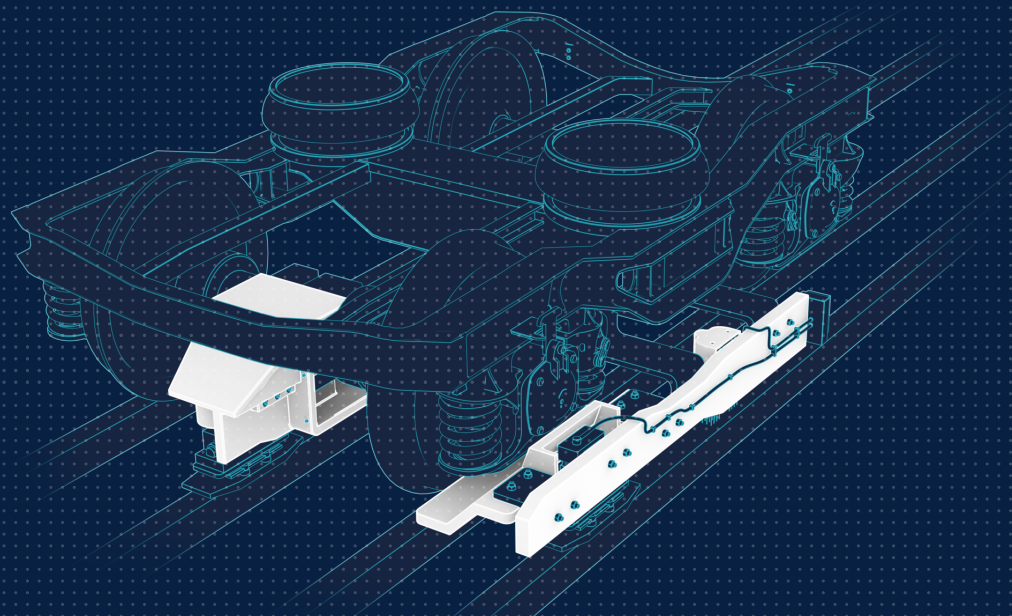


INSULATION COMPONENTS FOR PASSENGER AND FREIGHT TRAINS THAT PROVIDE OUTSTANDING FIRE PERFORMANCE & PROTECTION



Fire retardant high performance FRP composite material solutions

For more than 50 years, Permal has been an approved OEM supplier to the global rail sector. Permaglass® high pressure laminates and resin infused mouldings are specified for demanding insulation applications for rolling stock where fire, smoke and toxic fume emissions are critical for safety.



COMPLIANCE

- BS EN 45545-2:2-13 (R1) HL3
- RSE/STD/014 Part 1
- UL94 V-0
- NF F 16-101 (102) M=2 / F=0



OUTSTANDING ELECTRICAL RESISTANCE

- High arc resistance
- High resistance to tracking (CTI)
- Good electrical strength
- Low voidage



EXCELLENT DIMENSIONAL STABILITY

- Synthetic materials offering less than 0.05% water absorption
- High Strength & Fatigue Resistance – proven to withstand extreme track induced forces



ENVIRONMENTAL RESISTANCE

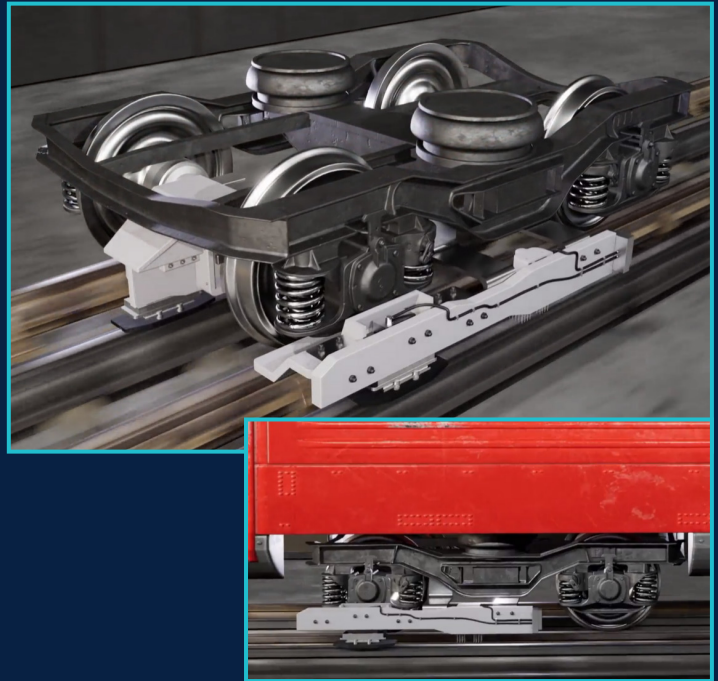
- Excellent chemical resistance
- Fire retardant / self-extinguishing
 - + Low smoke and toxic fume emission
 - + Halogen free
- Operating temperature of up to 130°C



Arc Protection

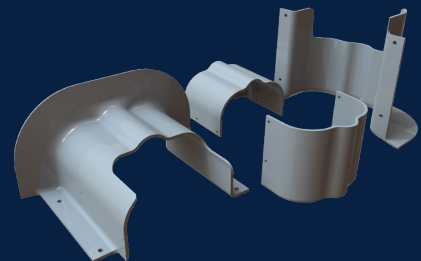
Modern trains collecting 750 V DC of electricity from a third rail require insulating materials that offer the best possible protection from electrical arcing that occurs at the current collection point. The potential damage and destruction that can be caused by electrical arcing to critical components on the under carriage of modern rolling stock can be catastrophic.

Permaglass MER35 has been developed to quench the arcing and limit the electrical tracking that can follow, offering the best protection possible for passengers and expensive equipment. MER35 is also fully compliant with **London Underground Ltd spec. RSE/STD/014 part 1: Issue A, fire and Arc protection standard.**



Fire, Smoke & Toxic Fume Emission Protection

Permaglass MER35 incorporates a high performance fire retardancy system into its epoxy resin. The complex nature of these fire resistant additives requires a combined construction of woven and non woven glass reinforcements to offer outstanding protection in a fire situation – self extinguishing with low smoke and toxic fume emissions when burning.



Company Capabilities

- Prepregging
- High pressure laminating
- Resin infusion
- Vacuum bagging
- Precision 5-axis CNC machining
- Bonding & assembly
- CMM inspection
- CAD/CAM support
- Reverse Engineering

For more information on how we can help you, visit our website perмали.co.uk or email us at sales@perмали.co.uk.

