

CUSTOMIZED

ELECTRICAL INSULATION SOLUTIONS

INSULATORS & BUSHINGS MADE FROM POLYMER CONCRETE AND EPOXY RESIN

- PANTOGRAPH SUPPORT INSULATORS
- ROOF FEEDTHROUGH BUSHINGS
- THIRD RAIL INSULATORS
- LOW TENSION RAILWAY INSULATORS
- CABLE CONNECTORS
- OUTDOOR POST INSULATORS
- CONNEX SOCKET
- FUSE CUT-OUTS
- VOLTAGE DETECTORS





PANTOGRAPH SUPPORT INSULATOR (25kV)

Designed for mechanical strength and longevity with resin system giving excellent performance and uninterrupted operation even in a hostile environment. Any roof-side fastening variation is feasible due to the interchangeable base plate. Designed as per requirement with fire and smoke certification according to EN 45545, UL 94 VO, ASTM D2303, D495, D2196, D229 and others.

RAILWAY ROOF-SUPPORT BUSBAR INSULATOR (25kV)

Pollution resistant panto insulators that may be installed on any platform roof and be used as a roof-line support or busbar insulator for electric locomotives. Cycloiphaticcast-resin technique and EN45545 approved.



RAILWAY ROOF FEEDTHROUGH BUSHINGS (25kV)

Radiant is a specialist in creating custom Railway bushings for the world's leading manufacturers of locomotives. These bushings are installed in the rooftop of the locomotive. Tested acc. To these Standards - EN, BIS, IEC, ANSI, UL, SSI, IEEE, DIN, AST.



THIRD RAIL INSULATORS

Outperforms ceramic insulators with use of cycloaliphatic epoxy resin, they can be mounted in same location as existing third rail without structural modifications. Highly adaptable and can be designed according to specific needs. Meet EN 45545, UL 94 VO criterias, fire and smoke certifications also available in accordance with ASTM D2303, D495, D2196 ,D229 requirements for specific models.

MEDIUM VOLTAGE AND HIGH VOLTAGE INSULATORS

Customized insulating parts casted in epoxy that exceed in all quality, durability, and efficiency requirements for bushings and terminals used in high-stress, high-voltage applications.



CABLE CONNECTORS

Experienced manufacturer of insulation plugs, customised cable end bushings, and termination plugs in all sizes ranging from 12 kv to 170 kv, specialising in small bushings and cable connectors in a variety of formats to meet specific customer requirements





CONNEX SOCKETS

Designed to connect or “plug-in” polymeric insulated cables into gas insulated switchgear, ring main units, circuit breakers, high voltage motors, transformers, transducers and sealing boxes. SIZE 2, SIZE 3 AND SIZE 4 (with and without tap) readily available.

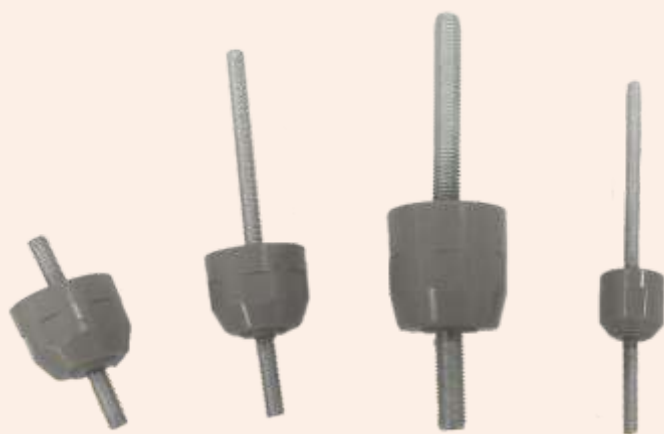
OUTDOOR POST INSULATORS

Different standard and custom support insulators of various heights for use in tramway, pantographs, power-rails and trolley-bus current collectors. Available in various options of inserts and threads. Cycloaliphatic cast resin system certified according to EN 45545, UL 94 VO.



MEDIUM BUSHING TERMINALS

Customized high current bushing and bushing terminals with coated copper for special application in railway technology according to all the accepted industry standards.

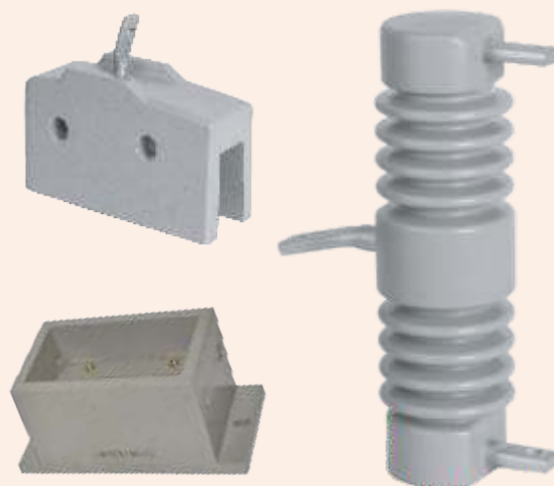


LOW TENSION RAILWAY INSULATOR

Customer-specific low tension insulators which are used in Pantographs, Trolley Busses and small Conductor Rails. Available in various options of inserts and threads, manufactured from Cycloaliphatic cast resin system certified acc. EN 45545, UL 94 VO.

FUSE CUTOUTS

Cut outs made of polymer concrete are able to perform in stressful environments, including extreme cold and heat. Deployable by the sea coast and in heavy pollution performing better than the silicone fuse cutouts. Distribution cutouts for overcurrent protection on overhead distribution systems up to 38 kV for ANSI, IEC and Australian standards.



VOLTAGE DETECTORS

A range of customized casted voltage and current sensors. These sensors can monitor medium voltage smart-grid solutions and give optimum performance in grids for medium voltage switchgears as well.

MATERIAL

Products made from Polymer Concrete and Epoxy resin, for indoor and outdoor electrical application.

RE-RESIN

Is an exclusive resin formulation developed with over 25 years of R&D by Radiant which guarantees a better performance than other resin formulations, our clientele and global presence is a testament to the quality of **RE-RESIN**.

ADVANTAGES OF **RE-RESIN**:

- Suitable for outdoors as it is UV resistant.
- Design flexibility due to metal part moldability and high strength.
- Excellent mechanical & electrical properties.
- Very good impact, shock and vibration strength.
- Very Good Freeze – Thaw properties.
- Minimal moisture absorption.
- Durability that reduces typical breakage from shipping, storage and installation
- Cracks do not propagate like Ceramic during impact.
- Not eatable by birds.

RE - RESIN has been globally tested to attain universal acceptance.

-ERDA (Electrical Power & Research Institute)

Various Electrical, Mechanical & Physical Tests, INDIA

-SGS Testing lab (EN – 45545-2 2013)

For Fire Protection on Railway Vehicles, CHINA

-VTech –ASTM D229 Method II

For flame resistance of rigid sheet and plate materials, USA

-UL 94 V0

for vertical burning test, UL Lab, TAIWAN

-CPRI (Central Power and Research Institute)

Various critical test for Surge Arresters & Railway applications,INDIA

RE-RESIN DATA SHEET

	Values	Standards Applicable
Tension strength (MPa)	75 - 85	ISO 527
Bending strength (MPa)	125 - 135	ISO 178
Impact strength (KJ/m ²)	10 -12	ISO 179
Combustibility (12mm specimen)	HB	UL94
Flame Resistance of Rigid sheet and Plate Materials	Passed the Test (Ratio 1 and Ratio 2 < 0.642)	ASTM D229 Method II
Thermal classification	Class F	IEC 60085
Fire Protection on railway applications	Meets Requirement of R23 Specified in HL3	EN 45545-2:2013
Flammability -50W (20 mm)	Flame rating - V-0	UL 94
Dielectric strength (kV/mm)	18 - 19	IEC 60243
Dielectric loss (50Hz, @23°C)	1.5 - 2.0	IEC 60250
Volume resistivity (Ω.cm)	> 1015	IEC 60093
High voltage	350min (2500V) at 50Hz	ASTM D2303
Tracking and erosion test		IEC 60112
Tracking resistance	> 600	
HV arc resistance (s)	185 - 195	ASTM D495
Glass transition temperature	>125 °C	ISO 11357-2
Coefficient of linear expansion (°C ⁻¹)	31 - 36 X 10-6	DIN 53752



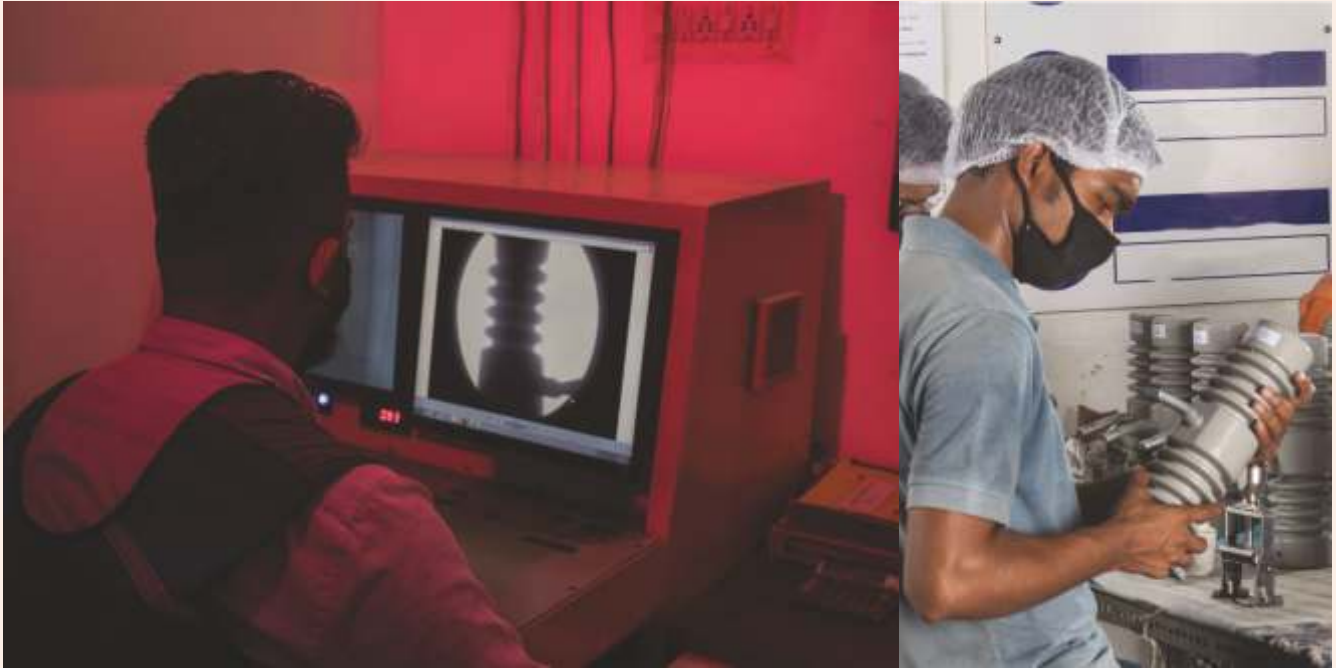
VTEC Laboratories Inc.



TESTING AND QUALITY

Faultless delivery and assured products that have the exact quality standards with help of our state-of-the-art testing equipments.

- Precision dimensional testing
- Bending load testing
- Hydraulic testing
- High voltage electrical testing upto 100 kV
- X-ray testing



With In-process monitoring, continuous training, rejection records and corrective action plans with implementation ensure that our three-tier quality inspection policy gives flawless supervision across all stages of manufacturing - Raw material, First inspection reports of new parts, in process material and finished product. Including a traceable record accounting for every detail including records of employees working on each product.

PRODUCTION CAPACITY

- 35000 sq. ft production space
- 9 High-power vacuum with material-mixing capability
- Production capability of 15 ton of material per day
- Single cavity and multi-cavity molds operated by clamping units.
- 35 Automated Pressure Gelation (APG) machines
- 4 Hot air ovens
- Expert workforce of 75 workers, 4 supervisors and 4 QC Inspectors.

CERTIFIED

ISO 9001:2005,
ISO 14001:2005 &
IRIS/ISO/TS 22163:2017



CLIENTELE

ALSTOM



BOMBARDIER



SIEMENS



Raychem RPG



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