

A NEW YEAR, A NEW BEGINNING: ENVITEST LAB'S COMMITMENT TO EXCELLENCE

ENVITEST LABORATORIES PRIVATE LIMITED

Sustaining Quality and Consistency: A Commitment to Nation-Building



As the calendar turns to a new year, we at Envitest Lab embrace it as a fresh opportunity to recommit ourselves to our core mission: delivering high-quality, consistent, and reliable test results. This new beginning inspires us to reflect on our journey, refine our processes, and renew our dedica-

tion to serving industries with integrity and precision.

Envitest Lab recognizes the critical role we play in supporting industries that contribute to the nation's growth. Whether it's aerospace, automotive, defense, or manufacturing, the test results we deliver form the foundation of safety, efficiency, and innovation. By ensuring that every component, material, and system meets rigorous quality standards, we contribute to building a stronger and more resilient India. We take pride in being a part of the value chain that supports the nation's infrastructure and technological advancements. Our contributions extend beyond compliance; they symbolize our

commitment to creating a safer, more sustainable future.

As we step into the new year, we express our gratitude to our clients, partners, and team members for their unwavering trust and support. It is through your collaboration and confidence that we continue to grow and excel.

Quality and consistency are the cornerstones of our operations at Envitest Lab. Journey ahead is filled with opportunities and challenges, but with a shared commitment to excellence and nation-building, we are ready to embrace them. Here's to a year of innovation, progress, and sustained quality at Envitest Lab. Wishing everyone a prosperous and fulfilling New Year 2024!

Special points of interest:

- Envitest Lab has enhanced its capabilities by adding to accurately measures **Insertion Loss (IL)** and **Return Loss (RL)**, key parameters for evaluating fiber optic cable performance and quality. .
- Envitest Lab offers specialized testing for **Electric Vehicle (EV)** chargers for derating, flexing, pulling, and ice water splash to evaluate the performance and longevity of EV chargers. .
- Envitest Lab now provide testing services for **MIL Grade connectors** in compliance with **JSS6020 Full Set** standards used in military and defense applications.

Building Trust with Reliable and Consistent Results

Every test we perform is backed by adherence to standards and best practices, ensuring accuracy and reliability. The new year brings renewed focus on:

Innovation in Testing: Continuously upgrading our methodologies and equipment to meet industry standards.

Employee Development: Providing ad-

vanced training programs to ensure our team remains at the forefront of technical expertise.

Client Collaboration: Strengthening partnerships with our clients by understanding their unique requirements and delivering tailored solutions.

In 2024, we aim to:

Expand our testing capabilities to include emerging technologies and industries.

Enhance our processes to achieve even greater efficiency without compromising on quality.

Foster a culture of continuous improvement, where every team member is empowered to innovate and excel.

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Proper setup is critical to avoid anomalies and ensure even exposure to temperature extremes.

The test involves rapidly cycling products between high and low temperatures, causing thermal expansion and contraction. These stresses can reveal vulnerabilities such as cracks, fractures, or delamination, ensuring only the most robust products make it to market.

Thermal Shock Testing: Ensuring Your Product's Endurance

Imagine you're on an all-India trip, covering the northern Himalayas, the rainy mountains of the east, the coasts of both the east and west, and the tropical conditions of the south. Along the way, you'll face scorching heat one day and freezing cold the next. One moment you're navigating extreme humidity, the next you're braving the dry, sweltering sun. Sounds intense, right? For many industries,

these conditions aren't just hypothetical—they're real-world challenges that products must endure to ensure their reliability and durability.

Still, all your gadgets, automobile, and items you carry have to withstand these extremes, performing flawlessly in every environment. Whether it's your mobile phone, car, or any other equipment, they need to be built to survive the unpredictable and

harsh conditions of such a journey.

Rapid temperature changes, known as thermal shock, create immense stress on materials, causing them to expand and contract quickly. This can lead to cracks, fractures, seal leaks, and even total product failure. For automotive, aerospace, electronics, and medical devices, such failures can have safety, reliability, and financial consequences.

Key Aspects of Thermal Shock Testing at Envitest Labs:

At Envitest Labs, we use advanced dual climate chambers that simulate real-world conditions by rapidly cycling between temperature extremes. This is done with precision, ensuring that your product undergoes the exact conditions it might face during transportation, storage, or use. The testing is customized for each product, with specific tem-

perature ranges, cycle numbers, and soak times based on the product's intended use.

What to Consider for Thermal Shock Testing. To ensure accurate results, here are some key considerations:

Temperature Extremes: Make sure the maximum and minimum temperatures are realistic for the

product's use.

Cycle Count & Duration: The number of cycles and soak durations must replicate the conditions the product will face.

Testing Configuration: Proper setup of the product within the testing chamber is critical to avoid anomalies and ensure even exposure to temperature extremes.



Thermal shock testing is essential for manufacturers to identify potential weaknesses in their products before they reach the market. This test subjects products to rapid and extreme temperature changes, mimicking real-world conditions like transportation, storage, and use in varying climates. By exposing products to these stresses, one can detect issues such as cracks, frac-

tures, seal failures, or material degradation.

Thermal shock testing ensures that each product meets the highest standards for performance, safety, and reliability. This is especially crucial for industries like automotive, aerospace, electronics, and medical devices, where even a small failure can have significant consequences.

By conducting thorough thermal shock tests, one can enhance product design, improve quality, and boost customer confidence. This proactive approach helps reduce the risk of product failure in the field, saving time and costs or repairs. In essence, thermal shock testing is vital for ensuring products perform optimally in real-world, extreme conditions. .

Why Thermal Shock Testing is Crucial

Optical Fiber Cable Test For Insertion Loss and Return Loss at Envitest Lab

Envitest Lab is proud to announce the addition of a "Optical Fiber Cable Test Facility parameters: Insertion Loss (IL) and Return Loss (RL)" designed to enhance the quality and performance evaluation of fiber optic cables.

Insertion Loss (IL) gauges the amount of optical power lost as light travels through the fiber optic cable, while Return Loss (RL) measures how much light is reflected back due

to imperfections, connectors, or other discontinuities in the cable. Both parameters are vital for ensuring efficient and high-performance fiber optic networks.

Equipped with optical power meters, stable light sources, and optical switches, we can perform accurate testing across various wavelengths. The facility supports a range of applications, where it tests cables and components, as

well as network installation and maintenance to verify fiber optic connection integrity, research and development.

This new addition to Envitest Lab further strengthens our commitment to providing top-notch testing and quality assurance services, ensuring that fiber optic cables meet the highest standards for performance, reliability, and longevity.



Measurement of Insertion Loss (IL) and Return Loss (RL) in fiber optic cables, using advanced tools to ensure accurate testing for quality control, network maintenance, and research.

Inauguration of Chennai Test Centre

Envitest Lab proudly announces the inauguration of our new test center in Chennai, marking a significant step in expanding our capabilities. This test facility is designed to cater to a wide range of testing needs across industries, ensuring quality, precision, and adherence to global standards. The inauguration ceremony, at-

tended by our esteemed partners, strategically located in centre of auto hub of Chennai, the center is poised to support industries such as automotive, aerospace, defense, and manufacturing. Currently, the groundwork is in full swing to initiate test activities at the Chennai center.

Our dedicated team is working tirelessly to install

equipment, streamline processes, and ensure compliance with regulatory requirements. The Chennai test center will soon be operational, providing a comprehensive suite of testing services quality that Envitest Lab is known for. We look forward to serving our clients from this new hub of excellence.

The opening of the Chennai test center highlights our commitment to innovation and supporting industry growth nationwide. We are training our team, installing equipment, streamlining processes, and ensuring regulatory compliance for smooth and efficient operations.

The Spirit of Christmas and Envitest Lab: A Reflection

Christmas, a season of joy, hope, and giving, holds values that resonate deeply with Envitest Lab's ethos. Much like Christmas, Envitest Lab focuses on bringing people together, fostering trust, and delivering results.

The essence of Christmas lies in its traditions of spreading happiness and ensuring the well-being, mirroring our commitment

to testing. At Envitest Lab, we understand the importance of consistency, just as Christmas consistently brings warmth and cheer every year. This dedication ensures the trust, knowing we uphold the highest standards.

Both Christmas and Envitest Lab emphasize preparation and planning. Just as Christmas celebrations require meticulous effort

to create lasting memories, our team ensures every test process is methodically executed to deliver accurate results.

Finally, the spirit of giving during Christmas reflects our contribution to nation-building. As we celebrate this festive season, we are reminded of the shared values that inspire us to strive harder, ensuring quality and harmony in all.



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info@envitestlab.com



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- ◇ Optical Fibre Cable Testing
- ◇ Telecom Interface Testing
- ◇ Electrical Cables and Connectors Test
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Envitest Lab - Bengaluru Test Centre

No.14-1510, Maruthi Timber Road, Garvebhavi Palya, Hosur Road, Bangalore – 560068, Karnataka, India.
080 42171044 | +91 9606075771 | +91 9606075772

Envitest Lab - Coimbatore Test Centre

KEnTEc, C/o Kumaraguru College of Technology, Chinnavedampatti, Coimbatore, TN – 641049
+91 9606080881

Envitest Lab - Chennai Test Centre

No.27, Medrospuram Ind. Est., Maraimalai Nagar, Chennai, TN – 603204
+91 9606080882

About Envitest Lab

WHERE EXCELLENCE MEETS ASSURANCE.

OUR VERTICALS

- TESTING
- CERTIFICATION
- INSPECTION
- ENGINEERING

Working tirelessly behind the scenes to guarantee product success

ENVITEST Lab abbreviated for “ENVIRONMENTAL TESTING”, established in 2017 at Bangalore Electronic City, is a ISO/IEC 17025 certified company with an objective to offer high-quality testing, inspection, pre-compliance, certification, and engineering services for the across the globe products.

We serve across domains products for the compliance and certifications. Over time we kept on add-

ing the new testing facilities to bring more opportunities for growth but would allow to provide a more complete portfolio of testing solutions to our customers. From our humble beginnings, we have grown from a simple test house who worked on the world’s most complex engineering projects to become a leading test lab of standard and custom test services. Throughout our journey to become one of the premier worldwide service providers of testing solutions, we have held true to the philosophy that the customer comes first.

Our Disciplines -

Electronics and Electrical Product Test covering Optic fibre, electrical connectors for

automotive and MIL, Aircraft electrical characteristic, Product safety, Product performance, Product susceptibility test.,

Telecom Product Test covering telecom products which covers PON and GPON Test, Interface Test, EMI/EMC test, Router and Switches and many more.

Environmental Test for Any Product covering - Shock and Vibration, Bump, Thermal, Humidity, Damp Heat, Cold Hot temperatures, thermal shock, Ingress protection, dust, water, contamination, fungus, Ultraviolet UV, salt and acidic corrosions and many more.