

# **Our Service**

### RoHS & Heavy Metal Testing

RoHS, which stands for Restriction of Hazardous Substances, is a directive that originated in the European Union (EU). RoHS restricts the use of specific hazardous materials in the manufacture of various types of electronic and electrical equipment. The directive aims to reduce the environmental impact of electronic products by limiting the presence of certain substances known to be harmful to human health and the environment.

### Chemical Testing

Chemical testing of metals involves the use of various techniques to analyze the composition and properties of metal samples. This type of testing is crucial in ensuring the quality, integrity, and compliance of metals with industry standards and specifications.

#### Mechanical Testing

Mechanical testing of metals involves evaluating the mechanical properties of a material to understand its behavior under various forces and conditions. These tests help assess the material's suitability for specific applications, quality control, and research purposes.

### Metallography Testing

Metallography is a microscopic study of the structure of metals and alloys. Metallographic testing is the process of preparing and examining metal samples to understand their microstructure, which includes aspects such as grain size, phases present, and the distribution of different constituents.

### **Corrosion Testing**

Corrosion testing of metals is a process that assesses a material's resistance to corrosion, which is the deterioration of a material due to chemical reactions with its environment. Corrosion can lead to a loss of material, structural integrity, and functionality, making it important to evaluate and mitigate in various industries.

### Non Destructive testing

Non-destructive testing (NDT) of metals is a set of techniques used to evaluate the properties, integrity, and quality of materials without causing any damage to the tested components. These methods are crucial for ensuring the reliability of materials and structures in various industries.

#### "Leading the Way in Materials Testing"

Welcome to Chennai Analytical Laboratories, where precision meets excellence. We are a dedicated team of experts specializing in chemical testing, mechanical testing, and metallography for metals. Our commitment to accuracy, reliability, and customer satisfaction is unwavering.





Our team of experienced highly qualified staffs will help you to give accurate results with prompt response



CHENNAL

ANALYTICAL

LABORATORIES



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# **Chennai** Analytical Laboratories

Your Trusted Partner for Quality Assurance

### **NABL accredited ISO17025**





Cd

EU RoHS Hg

Cr6+

PBB

RoHS

"Experience innovation at its best in our newly relocated lab a state-of-the-art facility with a fresh aesthetic, upgraded equipment, and enhanced amenities. We invite you to witness the future of research and technology; visit us today!"

"Our mission is to ensure the quality, and integrity of materials by

providing comprehensive testing and analysis solutions that

empower our clients to make informed decisions"

We have Inhouse specimen preparation to give quick results, Sample collections available to save

your time and effort. Competitive price with accurate results



"Timeliness is our commitment! At our lab, precision CHENNAI meets promptness. Experience seamless service with accurate test results delivered on time—because your time matters, and so does your peace of mind."

Testing done as per ISO, ASTM, JIS & IS Standards to give reports in NABL Scope

Testing services we offer!!

- \* Chemical (same day results)\*
- Spectro Analysis (ferrous & non ferrous)
- Wet analysis (Solid & Burr samples)
- RoHS test & Heavy Metal Test
- Unknown metal Grade Confirmation
- Millipore Test (Cleanliness)
- Ferro Alloys, Ores & Minerals
- others (on request)

Fast Service

#### Metallography \*

- Microstructure Analysis
- Grain Size Examination
- Inclusion rating
- Coating thickness
- Case & Decarb Depth
- Volume fraction of Phase
- Macro & Grain flow
- Ferrite count
- Porosity %
- Nodules & Flake
- Dimensions Measurement
- Failure Analysis

#### 🔸 NDT (at Site/Lab)

- Ultrasonic Test
- Magnetic Particle
- Radiography test
- Dye Penetrant test
- Visual Inspection
- Portable Hardness
- Coating thickness
- PMI
- Crack Investigation



At Chennai Analytical Laboratories, we are proud to have collaborated with a diverse range of esteemed clients who have entrusted us with their projects and objectives. Our commitment to excellence and client satisfaction has been the cornerstone of our partnerships.





Hutterfly

## **Esteemed Clients** Sundaram Brak BĞR IGP TAFE Preethi SUNBEAN Vidiem Turbo Energy Ltd SUZLON Rane

- Acid Resistance
- Oil Resistance
- Ferric Chloride corrosion
- Stress corrosion

#### **Special Test** \*

- Adhesion
- Mass of Coating
- Cross Cut / Tape test
- Spring load
- Impact resistance
- Viscosity
- Mass per metre

























- Paint test
- Density

- Hardness (HV, HR, HB, Survey) - Impact (Room to Sub zero °C) - Load & Compression

ANALYTICAL

- Building material

\star Mechanical

- Tensile (Yield & offset)

- Bend (Base, RB, FB, SB)

- Weld (WPS, PQR, EQT)
- Fracture, Nick break
- Proof Load (Fasteners)
- Flattening, Flaring & Crush
- Pull / Push out

#### Corrosion

- IGC
- Pitting Corrosion
- Salt Spray test

#### - Alkali Resistance

- Water Resistance



IMPORTANT			
	RoHS Restricted Substances		
	ACTIS RESITCIES SUBSTITICES		
Directive	Substance	Limit	
RoHS 2 Directive 2011/65/EU	Lead (Pb)	< 1000 ppm	
	Mercury (Hg)	< 1000 ppm	
	Cadmium (Cd)	< 100 ppm	
	Hexavalent chromium (Cr6+)	< 1000 ppm	
	Polybrominated biphenyls (PBB)	< 1000 ppm	
	Polybrominated diphenyl ether (PBDE)	< 1000 ppm	
	Bis(2-ethylhexyl) phthalate (DEHP)	< 1000 ppm	
RoHS 3	Butyl benzyl phthalate (BBP)	< 1000 ppm	
Delegated Directive (EU) 2015/863	Dibutyl phthalate (DBP)	< 1000 ppm	
	Diisobutyl phthalate (DIBP)	< 1000 ppm	
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#### Scan here for NABL Certificate & Scope

