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# AUTOMOTIVE AND PARTS PRODUCTS 汽车及零部件产品

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# **GROUP** CULTURE 集団文化



#### 使命 Mission

为客户提供最合适的解决方案,用专业与责任成就生活之美

To provide the most appropriate quality solutions for customers, to achieve the beauty of life with professionalism and responsibility.

#### 愿景 Vision

成为最受人信赖的质量技术服务机构

To be the most trusted quality technical service organization.

#### 核心价值观 Core values

客户第一、团队合作、拥抱变化、激情、诚信、敬业

Client first, teamwork, embrace change, passion, integrity, professionalism

#### 社会责任 Social responsibility

应用先进的科学技术帮助消费者建立对产品和企业可持续的信任感,对客户、合作 伙伴、员工和股东负责。

Applying advanced science and technology to help consumers build sustainable sense of trust in products and enterprises; and be accountable to customers, partners, employees and shareholders.

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#### 华南

》深圳奋达实验室基地 South China Shenzhen laboratory base

#### 华南

》深圳新桥实验室基地 Central China Shenzhen laboratory base

华东 **)** 上海实验室基地 East China Shanghai laboratory base

华东 **B**山实验室基地 East China Kunshan laboratory base

## **ABOUT NTEK**

## 关于我们

北测集团汽车事业部成立于2012年,目前已建立深圳、上海、昆山 检测基地,辐射全国的服务网络,核心团队具有十多年行业经验, 凭借专业的测试服务和丰富的行业经验,成为国内外众多知名汽车 品牌认可的第三方测试机构。

NTEK汽车事业部致力于推动汽车产品质量提升,积极参与行业相关标准起草、编制,及时掌握法规及技术动态,从环保性能测试、物理性能测试,到零部件的可靠性测试,为客户提供包括汽车整车、汽车零部件和汽车材料检测等全方面解决方案。

The Automotive Division of NTEK was established in 2012. It has established four testing bases in Shenzhen, Shanghai, Wuhan, and Kunshan, with a nationwide service network. The core team has more than ten years of industry experience. With professional testing services and rich industry experience, it has become a third-party testing agency recognized by many famous automobile brands at home and abroad.

NTEK Automotive Division is committed to promoting the improvement of automotive product quality, actively participating in the drafting and compiling of industry-related standards, and timely grasping of regulations and technical trends, from environmental performance testing, physical performance testing, to component reliability testing, and providing customers with all-round solutions including the detection of whole car, auto parts and auto materials.

#### 我们为客户提供一站式解决方案

We provide one-stop solution for our clients

#### 设计 Design

为客户提供国内外标准法规资讯,制定企业标准,进行产学研合作。 To provide standards and regulations from home and abroad, formulate company standards and conduct business research cooperation for our clients

#### 制造 Manufacturing

为客户提供材料及部品检测验证、不合格品诊断,以提升产品质量保障。 Provide customers with materials and quality inspection and non-conforming products to improve product quality assurance.

#### 供应链 Supply chain

对供应商进行材料一致性检验、不合格品诊断,以促进供应链能力提升。 The supplier is tested for the consistency of the material and the non-conforming product diagnosis to improve the capacity of the supply chain.

#### 销售 Sales

为客户审核售后市场产品包装、运输、销售等环节,确保符合客户管理规范。 To review and review after-sales market product packaging, transportation and sales, to ensure compliance with customer management specifications.



设计 Design



制造 Manufacturing



共应链 Supply chai



销售 Sales

# QUALIFICATION & 资质荣誉与授权 **AUTHORIZATION**



CNAS认可 中国合格评定国家认可委员会认可 By the China National Accredita ( CNAS ) approval



博士后创新实践基地



新型材料与电子产品综合公共 测试平台 Public Testing Platform Of New Materials And Electronics



UL授权实验室 The United States UL insurers authorized laboratory



中国强制产品认证(民营首批) China Compulsory Certi□cation for safety product lines (The □rst private group)



全国无线电干扰标准化技术 委员会会员 Member of The National Committee on Radio Interference



国际电工委员会(IECEE) 认可实验室 CB Testing Laboratory



CMA计量认证资质 Owns Quali∏cation Certi∏cate Of



全国汽车标准化委员会组员 China Auto Standardization Committee



绿色制造检测公共技术服务平台 Public Testing Platform Of New Materials And Electronics



中国电子质量管理协会会员 China Quality Management Association for Electronics Industry Members



CQC委托检测实验室 中国质量认证中心(电池民营第一家) China Quality Certillcation CenterCQC entrusted testing lab (First Civilian-Run Enterprise For Battery)



国家级高新技术企业



美国实验室认可协会 授权实验室(A2LA) accredited LABORATORY insurers authorized laboratory



进出口商品检验鉴定机构(AQSIQ)



全国电子产品与系统的环境 标准化技术委员会会员



先进测试技术开发平台 北京大学深圳系统芯片设计重点实验室 Key Laboratory of Peking University



国际安全运输协会(ISTA) 认可实验室 ISTA Certified Testing Laboratory

## **TUNAN RESEARCH INSTITUTE**

## 图南研究院

### 博士后创新实践基地



#### 新技术新方法研发

新技术新服务研究与开发, 使用创新方法为客户解决问题

#### Development of new technologies and methods

Research and development of new technology and service, using innovative methods to solve problems for customers



#### 新项目开发

针对市场痛点问题, 积极开发新项目, 并同科研院所开展合作, 时刻保持技术的先进性

#### **Development of new project**

Aiming to the key problem in the market, we actively develop new projects, and cooperate with research institutes to keep the advanced technology



#### 前沿技术人才团队

积极建立院士工作站, 博士后创新实践基地, 研究生实践基地等平台。 努力构建高水平的人才团队。

#### High-level professional team

Actively establish academician workstation, postdoctoral innovation practice Base, Postgraduate practice base and other platforms in order to build high level technical team.



#### 法规标准起草修订

参与国家法规、标准起草 积极参与各标委会工作

#### Drafting and revising standards

Participate in drafting national regulations and standards, at the same time actively participate in the work of Standardization Committee



#### 法规资讯研讨交流

新技术分享与交流 促进产业可持续发展

#### Regulatory information Seminar

New technology sharing and communication, promote the industry sustainable

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## **OUR CLIENTS**

## 我们的客户

汽车事业部自成立以来,一直恪守着客户满意是检验我们工作成败的唯一标准的理念,以专业的技术和优质的服务赢得了 众多主机厂和供应商的信赖和支持!

#### 我们用最专业的技术,为您提供最好的产品解决方案!

Since its establishment, the Automotive Division has always adhered to the concept that customer satisfaction is the only criterion for testing the success or failure of our work, and has won the trust and support of many OEMs and suppliers with professional technology and high-quality services!

We use the most professional technology to provide you with the best product solutions!





























































以上为部分客户名单,排名不分先后

## **SERVICE NETWORK**

## 服务网络



#### 深圳实验基地

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## **CHEMISTRY LAB**

## 化学实验室

随着科技进步及环保意识的不断提升,消费者对汽车环保性能要求越来越高,尤其关注车内空气质量,对汽车行业产生重大影响。各地区及国家都有相关法规标准制定或颁布。

NTEK积极参与禁限用及挥发性有害物质研究,积累了丰富的测试及管理经验,可为客户提供专业的检测技术及咨询服务。

With the progress of science and technology and the continuous improvement of environmental awareness, consumers have higher and higher requirements on the environmental performance of vehicles, especially the air quality in vehicles, which is of great significance to the automotive industry. Relevant regulations and standards have been formulated or promulgated in various regions and countries.

NTEK actively participates in the research of prohibited, restricted and volatile hazardous substances, has accumulated rich experience in testing and management, and can provide customers with professional testing technology and consulting services.



#### 服务项目 Service

整车/零部件/材料散发性测试: Vehicle/componet/material volatility testing



气味测试 Odor Test 雾化测试 Fogging test 总碳测试 Total Carbon Test 甲醛测试 Formaldehyde Test















#### 材料有害物质测试:

#### Materials hazardous materials testing

整车拆解 The vehicle dismantling RRR计算 RRR Calculation



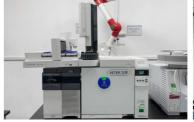
禁限用 物质测试 Prohibit Substance Test















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## **MATERIAL TEST LAB**

## 材料实验室

当今社会,汽车已经成为现代人们生活不可或缺的工具,而作为整车生产的基础,汽车材料的质量关系到车辆的安全 与舒适。

In today's society, automobile has become an indispensable tool for modern people's life. As the basis of vehicle production, the quality of automobile materials is directly related to the success of the vehicle.

#### 非金属材料服务项目 Non-metallic materials service projects

- 抗拉强度 Tensile strength
- 弹性模量(E) Modulus of elasticity(E)
- 简支梁冲击 Charpy Impact strength
- 熔融指数 Melt Flow Rates of Thermoplastics
- 维氏硬度HV Vickers hardness test
- 耐刮擦 Scratch resistance
- RCA耐磨 RCA abrasion
- 耐电压 Withstand voltage

- 屈服强度 Yield strength
- 断后伸长率 Elongation
- 扭矩
- 高分子材料定性 FTIR
- 洛氏硬度HR Rockwell hardness test
- 五指刮擦 Five fingers scratching

Surface resistance

• 密度 Density

• 表面电阻

- 热变形温度 Heat deflection temperature

• 压缩强度

• 弯曲实验

Bend test

- 热失重分析 TGA
- 显微维氏硬度 Micro Vickers Hardness Test
- 十字刮擦 Cross the scratching • 体积电阻
- Volume resistance • 耐化学试剂

Chemical resistance

- 剥离强度 Compressive strength
  - 悬臂梁冲击 Izod Impact strength

Peel Strength

- 维卡软化测试 Vicat softening temperature(VST)
- 邵氏硬度HA Shore hardness
- 铅笔硬度 Pencil hardness
- 磨耗性能 Abrasion performance
- 绝缘电阻 Insulation resistance
- 燃烧特性 Combustion characteristic







#### 金属材料服务项目 Metal materials service

• 化学成分分析 Chemical composition analysis

• 力学机械性能

- 显微分析 Microscopic analysis
- 金相分析 Metallographic Mechanical mechanical
- 镀层分析 Plating analysis
- 断口分析 Fracture analysis
- 尺寸测量 Size measurement
- 腐蚀测试 Corrosion test
- 无损检测 Nondestructive testing
- 焊接检验 Welding inspection







#### 涂层和镀层服务项目 Coating and coating service

• 涂层/镀层分析 Coating/plating

• 漆膜抗砂冲击

漆膜柔韧性 Paint film flexibility

光泽度

- 色差 • 磨耗性能 Color difference Abrasion performance
  - 涂层/镀层厚度 Coating/plating thickness





附着力

Adhesion



漆膜硬度

Paint film hardness

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## **RELIABILITY LAB**

## 可靠性实验室

NTEK可靠性实验室可进行内外饰件、电子电器件等材料及零部件进行标准符合性测试。

NTKE reliability laboratoy can conduct standard conformance tests for materials and parts such as accessories, electrical appliances, etc.





#### 机械可靠性实验室 Mechanical reliability laboratory

- 机械振动 Mechanical Vibration
- 跌落试验 Drop test
- 扭力 Torsion
- 滑车试验 Block test
- 机械碰撞 Mechanical bump
- 座椅的操作力 Operating force of the seat

- 机械冲击 Mechanical Shock
- 落球冲击 Falling ball impact test
- 碎石冲击 Gravel impact test
- 座椅向前纵向强度
   Seat forward longitudinal strength
- 推拉力试验 Push-pull test
- 头枕向后线性加载 Head restraint remova effortsl

- 三综合试验 Environmental Vibration test
- 插拔力试验 Plug and pull force test
- 疲劳耐久 Fatigue durability test
- 座椅轨道性能 Seat track performance
- 刚性测试 Rigidity test
- 座椅H/R点测量
   Seat H/R point measurement





#### 环境可靠性实验室

#### **Environmental reliability laboratory**





- 温度湿度循环试验 Temperature/Humidity cycle test
- 快速温变试验
   Rapid temperature change test
- 红外老化试验 Infrared aging test
- 高压水冲洗 High pressure water washing
- 盐雾试验 NSS、AASS、CASS

- 高温试验 High temperature test
- 冷热冲击试验 Thermal shock test
- 氙灯老化试验
   Xenon lamp aging test
- 防水 Waterproof
- 循环盐雾 Circulation salt fog

- 低温试验 Low temperature test
- 恒定湿热试验 Constant damp heat test
- 紫外老化试验 Ultraviolet aging test
- 防尘 Dustproof
- 低气压试验 Low air pressure test









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# AUTOMOBILE ELECTRONIC LAB

## 汽车电子实验室

汽车作为一个与人类安全息息相关的产品,从诞生之初就对其提出了最高的安全要求。NTEK汽车电子实验室可以模拟世界各地的地理环境和气候条件;可以模拟各种道路质量、路面类型、道路地形、车辆使用类型和驾驶习惯引起的车辆内环境条件的变化;可以模拟车辆内供电电压的变化,最大程度的为汽车内产品的安全性保驾护航。NTEK汽车电子实验室包含有汽车电子EMC、环境模拟、车载部件和充电系统等领域。

As a product closely related to human safety, automobiles have put forward the highest safety requirements from the very beginning. NTEK Automotive Electronics Laboratory can simulate the geographical environment and climatic conditions around the world; it can simulate the changes in the environmental conditions in the vehicle caused by various road quality, road type, road topography, vehicle use type and driving habits; it can simulate the power supply voltage in the vehicle The changes to the greatest extent escort the safety of products in the car. NTEK automotive electronics laboratory includes automotive electronics EMC, environmental simulation, vehicle components performance and charging systems.

#### 汽车电子EMC Automobile electronic EMC

- 传导测试 Conduction Test
- 辐射抗扰测试 Electromagnetic Immunity Test
- 静电放电测试Electrostatic Discharge Test
- 辐射测试 Radiation Test
- 雷达波测试Field strenght of radar-wave
- 低频磁场抗扰度测试 Low Frequency Magnetic Field Test
- 大电流注入测试 BCI Test
- 电源线的传导抗扰测试 Transient Conduction Susceptibility Test



#### 环境模拟领域

#### **Environmental simulation field**

#### 电气负荷服务项目

#### **Electrical loads services**

- 供电电压
- Direct current supply voltage
- 供电电压缓降和缓升
   Slow decrease and increase of supply voltage
- 供电电压瞬态变化
   Discontinuities in supply voltage
- 耐电压
- Withstand voltage

#### 机械负荷服务项目

- **Mechanical Loads services**
- 振动 Vibration
- 外表强度/划痕和耐磨性能
  Surface strength/scratch abrasion resistance
- 气候负荷服务项目 Climatic loads services
- 恒温试验
   Tests at constant temperature
- 耐盐雾 Salt spray tests
- 流动混合气体腐蚀试验
   Corrosion test with flow of mixed gas

- 过电压 Overvoltage
- 反向电压
   Reversed voltage
- 参考接地和供电偏移 Ground reference and supply offset
- 绝缘电阻Insulation resistance

- 叠加交流电压
   Superimposed alternating voltage
- 开路 open circuit test
- 短路保护

Short circuit protection

- 自由跌落 Free fall
- 砂石轰击
   Gravel bombardment

Mechanical shock

• 机械冲击

- s
  - Temperature cycling tests
    湿热循环
    - Humid heat cyclic test

       冰水冲击试验

Ice water chock test

温度梯度

- 温度循环 Temperature cycling test
- 稳压湿热
   Damp heat, steady-state test
- 太阳光辐射 Solar radiation

## 化学负荷服务项目

### Chemical loads services

检验汽车部件暴露在化学试剂污染中的耐受能力

To determine whether the vehicle component is unacceptably affected by temporary exposure to specified chemical agents









#### 车载部件性能

#### Vehicle component performance

#### 汽车线束服务项目

#### **Automobile wiring harness services**

- CAN/LIN总线通讯信号检测 CAN/LIN bus communication signal detection
- 瞬断监控测试 Transient break monitoring test
- 线束压接横断面分析 Cross-sectional analysis of wire harness crimping

#### 汽车音频服务项目

#### Automotive audio analysis services

- 车载音响测试 Vehicular sound system test
- 车载扬声器测试 Vehicular speaker system test

- 大电流耐久性测试 Heavy current durability test
- 疲劳耐久性测试 Fatigue durability test
- 环境可靠性 Environmental reliability
- 模拟微中断测试 Microinterrupt simulate tests
- 气密性测试 Air tightness test
- 车载收音机测试
- 汽车噪声测试
- 车载蓝牙测试 Vehicular blue-tooth system test

Vehicular radio system test

#### Automotive image measurement services

• 车载显示设备测试 Vehicular display system test

汽车影像服务项目

- 汽车电池服务项目 **Automotive battery services**
- 电池内阻测试 Battery inner resistance test
- 无缝切换充/放电测试 Charge/discharge seamless switching tests

- 车载监控设备测试 Vehicular monitor system test
- 汽车颜色评估 Automotive color evaluation
- 动态放电测试
  - 充放电循环测试 Charge and discharge cycle test

Dynamic discharge test

- 电动汽车刹车回冲测试 Brake recoil test of electric vehicle
- 电池安全保护性测试 Protective testing for Battery safety





#### 充电系统

#### **Charging system**

NTEK建有专业的电动汽车充电装置检测实验室依据最新国家标准、国际标准、能源标准和企业标准(如国网、南 网和普天),为电动汽车充电装置企业(包括充电站业主、运营商和制造商)提供独立第三方检测业务。

NTEK has a professional electric vehicle charging system testing laboratory according to the latest national standards, international standards, energy standards and enterprise standards(e.g. SGCC, CSG and Potevio), for the electric vehicle charging device enterprise (including charging station owners, operators and manufacturers) to provide independent third-party testing business.

#### 服务范围

#### Scope of services

电动汽车充电站、非车载充电桩、交流充电桩、车载充电机,以及电动汽车控制器等。

Electric Vehicle Chargers testing lab provides many testing items including electric vehicle charge-station, electrical vehicle off-board charging pile, AC charging spot, on-board charger, electric vehicle controller and

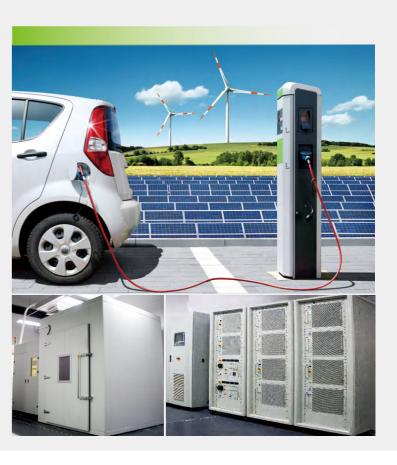
实验室配置了专业的设备,可实现充电站/桩现场验收、检测及计量。

Laboratory equipped with professional equipment, which can provide acceptance testing and measurement for charging station and pile.

#### 实验室检测能力包括:

Laboratory testing capabilities include:

- 电气性能测试 Electrical performance test
- 电气安全测试 Electrical safety test
- 环境实验测试 Environmental test
- 通信协议测试 Communication protocol test
- 互操作与通信一致性测试 Interoperability and communication consistency
- 电磁兼容性测试 Electromagnetic compatibility test



## **FAILURE ANALYSIS LAB**

## 失效分析实验室



#### 材料及构件失效分析 Failure analysis of materials and components

- 成分定性分析 Qualitative analysis of composition
- 腐蚀老化失效分析 Corrosion aging failure analysis
- 微观结构分析 Microstructure analysis

- 成分定量分析 Quantitative analysis of composition
- 磨损断裂机理分析 Analysis of wear and fracture mechanism
- 断面分析 Cross section analysis
- 异物分析 Foreign matter analysis

## 电子元器件失效分析 Electronic component failure analysis

- 开封 Decap
- 取晶粒 Bare die Extraction
- 去金凸块 De-Gold Bump
- 红墨水试验 Dye&Pry test
- FIB-线路修补 FIB - line repair
- X射线透视 X-Ray
- BGA(PCB)&IC电路提图服务 BGA (PCB) &IC circuit Titus service
- EMMILC 液晶热点侦测 EMMILC liquid crystal hot spot detection

- 目视检查 Visual inspection
- 激光切割 Laser cutting
- 静电放电(ESD)测试 Static discharge (ESD) test
- 探针测试 Probe test
- LCR测试 LCR test
- I-V曲线量测 I-V curve measurement
- 扫描电镜应用 SEM/EDS application
- 超声波扫描分析

- 引线键合强度 bonding wire strenght
- 芯片粘结强度 The bonding strength of the chip
- 芯片去层 Delsyer
- 背面研磨 Backside Polishing
- 高解析度显微拍照 High resolution micrograph
- 横截面切片 Cross section section
- OBIRCH 应用 OBIRCH application









## **REGULATORY CONSULTATION** AND VALUE-ADDED SERVICES

## 法规咨询和增值服务

#### 咨讯服务 Information service

- 标准及法规资讯 Information standards and regulations
- 专题交流 Project communication
- 技术简报

Technical briefing

#### 标准制定 Standard setting

• 协助企业参与/制定国内外产品标准 Assist enterprises to participate in/set product standards at home and abroad

#### 技术合作

#### **Technical cooperation**

- 产品合规评价 工艺优化 Product compliance evaluation Process optimization
- 产品失效诊断 材料数据库 Product failure diagnosis The material database

## 二方审核

#### Second party audit

- OEM厂商评价 OEM evaluation
- Key supplier evaluation combine key process control
- 关键供应商评价 并键工艺控制

#### 实验室建设 **Laboratory construction**

- 实验室场地规划 The laboratory site planning
- 设备评估 Equipment evaluation
- 人员培训 Personnel training

- **System certification**
- OHSAS18001

体系认证

- TS16949
- ISO17025

能力验证

Ability verify

QC080000









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