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Your Partner in
Quality Control
Testing Instruments

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test for future



About Us

Headquartered in Guangzhou, China, TESTRON GROUP is a globally recognized leader in industrial and quality control material testing solutions. Further, our products extend worldwide, with sales and service offices located in both Massachusetts, USA, and Dubai, UAE.

Committed to innovation, quality, and sustainability, we serve the needs of a competitive global market by specializing in QC material testing solutions on an industrial scale. This alone has firmly cemented our status as technological leaders in the field, allowing us to push the boundaries of what's possible in the field of material testing.

We consider ourselves well-positioned to serve our clients globally, priding ourselves on fulfilling the many needs of our customer base with dedication, breeding trust and repeat clients whenever our resources are employed. However, of equal importance to a commitment to excellence, we want to make a positive impact on our planet.



PET Bottle and Preform Testing:

Ensuring Quality with Advanced Equipment

PET bottles and preforms are used extensively in all industries for packaging due to their strength, safety, and recyclability. Specialised PET bottle testing equipment and PET preform testing equipment are needed to ensure that such containers meet quality standards. Testron Group offers an array of reliable and precise PET bottles. It performs testing instruments designed to meet industry standards that can ensure the manufacture of safe and high-quality products.

A photograph showing a hand holding a clear PET bottle preform inside a testing chamber. The chamber has a circular opening and a digital display on the right side. The background is dark and slightly blurred.

Testron provides state of art PET testing equipment for a wide range of uses in the industry.

Critical Tests for PET Bottles and Preforms

Burst and Pressure Testing

This test checks on the ability of the bottle to resist pressure from the inside. With PET bottle testing equipment, such as pressure testing equipment, bottling companies ensure that these bottles will not burst out when stressed out, improving the product's safety for consumption.

Intrinsic Viscosity (IV) Test

This Test measures the molecular weight of polymers, crucial for determining the strength and quality of PET bottles. The viscosity affects their toughness and processability. Testron's TT-IVS200 Intrinsic Viscosity Tester delivers accurate results that meet industry standards for strength and consistency.

Top Load Testing

This determines the resistance of the bottle to vertical loading. From Testron Group, its bottle testing equipment allows you to perform an accurate test on top load to ensure that the bottles will not deform when stacked or stored in a warehouse.

Thickness Uniformity

Material thickness should be uniform enough to last long and not destroy the products. The testing equipment on PET performs measures with precision to keep them uniform in terms of material thickness

Gas Chromatography

User-Friendly Interface: Highlight easy-to-use controls and clear data display by understanding the needs of our users and designing with their experiences in mind.

Thermal Stability Testing

PET bottles should retain their shape and strength regardless of temperature changes. The PET preform and bottle testing equipment from Testron assesses stability across various environmental conditions.

Applications of PET Bottle and Preform Testing Instruments



Beverage Companies

Carbonated soft drinks and juice are subject to pressure testing and should not leak into the bottles



Pharmaceutical firms

Pharmaceutical firms are using PET bottles, so they require testing. This is needed to store medicines safely in a secure bottle.



Consumer Care Products

This common packaging form uses sturdy bottles for products like shampoos and creams to prevent leaks.



Food Products

PET bottles are often used for edible oils, sauces, and condiments that require high chemical resistance and durability.

Applications of PET Bottle & Preform Testing Instruments

TestronGroup provides a comprehensive series of high-quality PET bottles and preform testing equipment for reliable and accurate quality control. Our product list consists of PET bottle testing equipment, pet preform testing equipment, and bottle testing equipment for all types of PET bottle testing procedures. Our bottle test equipment ensures your products meet the highest standards and are suitable for testing using our PET bottle testing Instruments. We offer all-round solutions for PET to perform quality testing to ensure optimum performance and safety. Discover our Pet & Preform testing instruments for accurate and reliable testing.



TT-PET FID5220 Gas Chromatography

Polyethylene terephthalate (PET) bottles are widely used for beverage packaging. However, for the application of PET bottles as packaging material for mineral water, the acetaldehyde content of the bottle wall should be minimized. Acetaldehyde is a thermal degradation product of the PET polymer by the reaction of the vinyl end groups. If acetaldehyde migrates into the bottled water, it might influence the taste of the bottled water or beverage especially if it is carbonated.

TESTRON developed Gas Chromatography for the analysis of acetaldehyde (AA) residue in polyethylene terephthalate (PET) bottles using TT PET- FID5220 with flame ionization detection (FID). This method achieved a Low Detection Limit of 0.02 ppm.



TT-IVS200 Intrinsic Viscosity (IV) Tester

TESTRON IVS series is a unique test instrument designed for fast and safe intrinsic viscosity (IV) measurement. It is designed according to ISO, ASTM, DIN and GB standards. The system can directly calculate Intrinsic Viscosity.



TT- IVS200V2 Intrinsic Viscosity (IV) Tester

TESTRON IVS series is a unique test instrument designed for fast and safe intrinsic viscosity (IV) measurement. It is designed according to ISO, ASTM, DIN, and GB standards. The system can directly calculate Intrinsic Viscosity.



TT-IVS200 ViscoPlus Intrinsic Viscosity (IV) Tester

TESTRON IVS series is a unique test instrument designed for fast and safe intrinsic viscosity (IV) measurement. It is designed according to ISO, ASTM, DIN and GB standards. The system can directly calculate Intrinsic Viscosity.



TT-F1800 Full-automatic Total Migration Tester

TT-F1800 full-automatic migration tester is suitable for the determination of the dissolution amount of all kinds of food utensils, containers and food packaging film, cans or other food tools, pipes, and other products made from polyethylene, polystyrene, polypropylene, and perchloroethylene resin in different soaking solutions. Analyze leaching index through the determination of evaporation residue, to meet the different needs of product application. Migration tester



TT-F900 Fully Automatic Overall Migration Tester

Fully automatic overall migration tester is suitable for various utensils, containers, food packaging films, cans or other various food tools, pipes and so on, with material of polyethylene, polystyrene, polypropylene, perchloroethylene resin to determination of the dissolution of products in different soaking solutions. Through the determination of evaporation residue, the analysis of leaching index is performed to meet the different needs of product applications.



TT-HG300 Bottle Height Gauge

TESTRON Bottle Height Gauge is used to measure the height of glass bottles, PET bottles, cans and other packaging, equipped with high precision measuring granite platform. It has the characteristics of high precision, flatness and high accuracy, consistency and durability. The gauge can be connected to software or SPC system via the adapter and cable for data analysis.



TT-GCG85M Gate Center Gauge

TT-GCG85M Gate Center Gauge is for quick and easy verifying the centricity of the injection point of a blown bottle. The adjustable centering clamp and easy-observing scale enables the quick and easy operation. The equipment is ideal for the-line measurements near the blow molder, Incoming inspection operations prior to filling etc.



TT-HWC360S Hot Wire Plastic Bottle Cutter

TESTRON offers an easy-to-use and cost-effective method for cutting plastic bottles for section weight analysis. Using heated wires, the Hot Wire Cutter quickly slices through bottles, yielding a clean cut without deformation of the sections.



TT- SS250 Secure Seal Tester

In the PET bottle industry, it is important to test the seal integrity of PET bottles to ensure quality products will be delivered to the clients. TESTRON designed TT- SS250 Secure Seal Tester (Analog Indicator) for testing the secure seal performance of products by increasing the internal pressure.



TT-BM Leakage Tester

Leakage Tester to test the hermetic sealing quality and performance of packaging bags, bottles, cans, and so on, used in industries of food, beverage, pharmaceuticals, and personal care, and so on.



TT-BTG PET Bottle Wall Thickness Tester

Bottle wall thickness tester is an ideal measuring instrument for PET beverage bottles, cans, glass bottles, aluminum cans and other packaging containers; it is suitable for accurate measurement of wall thickness and bottom thickness of packaging containers with complicated texture. It has the advantages of convenience, durability, high accuracy, and low price. Widely used in glass bottle, plastic bottle / barrel manufacturing enterprises and pharmaceutical, health care products, cosmetics, beverages, edible oil, alcoholic beverage manufacturing enterprises.



TT-G190 Electronic Perpendicularity Tester

TT-G190 Electronic Perpendicularity Tester is suitable for measuring the vertical axis deviation of ampoule, vials and other bottle test of drugs, food, cosmetics. According to international standards, the innovative design and the fully automated test process greatly improves the accuracy of the test.



TT-PGP10 Perpendicularity Gauge for Preforms

TESTRON designed the TT-PGP10 Preform Perpendicularity Tester as a consistent tool for the customers that helps in testing the perpendicularity of PET preforms. It is used to test the accuracy of shape and size of preforms. With Preform Perpendicularity Tester, Perpendicularity is checked as it is dependent upon the shape, size, and quality of the product. It had a basic turntable where the preform is placed and rotated with a probe checking the differential in movement.



TT-C10 PET Bottle and Preform Cutter

The neck of the PET bottles has a greater value as compared to bottle flakes hence it is important to cut the bottle necks from the rest of the bottles. TESTRON PET Bottle & preform neck cutter is widely used in industries for cutting the neck of the bottles from the rest of the bottle. It is widely used to cut the bottle neck or preform neck for further sealing integrity analysis.



TT-PBT20 PET Bottle Burst Tester

TESTRON PET Bottle Burst Tester is designed for testing the capacity of resilience under certain pressure or the rupture test of the PET bottles. It is standardized equipment for the packaging industry & beverages industry. Users can choose the test methods (fill ramp mode, burst mode and custom mode) as needed. TT-PBT20 PET Bottle Burst Tester provides test needs for the performance of servo pressure control and the volume expansion of PET bottles.



TT-L200 Bottle Top Load Tester

TT-L200 Bottle Top Load Tester can measure the top load force, top load deformation, bottle body plane force and side force strength, the test result can be considered as the reference for product improvement and quality control. The tester is convenient operation and easy maintenance.



TT-PV801 PET Preform Polariscope- Analyze the distribution of internal strain

PET preform polariscope is designed to observe and analyze the distribution of internal strain in transparent plastic preforms. It has been widely used in the quality control of various plastic rough processing products and finished bottles.



TT-1000 PET Vertical Load Resistance Tester

TT-1000 PET Vertical Load Resistance Tester is professionally designed to test the top load resistance, top load deformation, container body side load resistance of PET container or metal container. The test results could be used as a guide, control and improve the product quality.



TT-V1 Vertical Deviation Tester

Vertical Deviation Tester is for testing vertical deviation of plastic bottles, glass bottles and other kinds of bottles, widely used in industries of food, pharmaceuticals, science research institutes and so on.



TT- B60 Color Assessment Cabinet – A Color Matching Instrument

Color assessment cabinet is equipped with 6 light sources. The consistency of the light sources in all color assessment cabinets gives excellent viewing conditions for reliable color critical decisions under consistent lighting.



TT-P200 Digital Torque Tester

This machine is applied for bottled packaging products, suction nozzle packaging products and hose packaging products. Cap opening torque is one of the key control process parameters, has a great impact on the intermediate transport of products, as well as the final consumption. This product is suitable for measuring the screwing locking strength and tightness, and unscrewing strength, of the caps of packaging bottles, tubes, spouts and so on. It is an indispensable test equipment in the production process.



TT-P100 Torque Tester

Torque Tester is applied for bottled packaging products, suction nozzle packaging products and hose packaging products. Cap opening torque is one of the key control process parameters, has a great impact on the intermediate transport of products, as well as the final consumption. This product is suitable for measuring the screwing locking strength and tightness, and unscrewing strength, of the caps of packaging bottles, tubes, spouts and so on. It is an indispensable test equipment in the production process.



Ensuring Quality
with Advanced
testing equipment

*ISO 9001
Certified
Company*



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