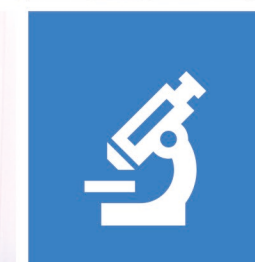
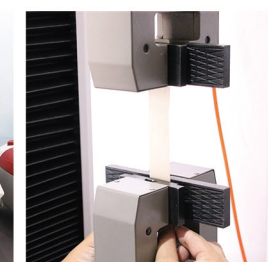
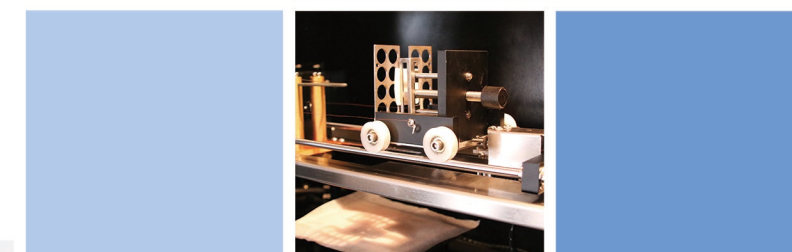




POLYMER TESTING EQUIPMENT • BROCHURE

UTSTESTER VERSION: 2024



utstesters.com



utstextiletester.com

UTS INTERNATIONAL CO., LTD

Add: 2/F, 23 Building, Xinronghuayuan, Qingnian road, Xiangcheng Region, Zhangzhou City of Fujian PR, 363000, China.

Tel: +86 596 7686 689 Mob: +86 173 5025 4382

Email: hello@utstesters.com

Notice: Specifications and appearance are improving all always without notice in advance, and the final confirmation is subjected to official quotation.



UTS INTERNATIONAL CO., LTD, is the manufacturer and exporter providing expertise standard based testing equipment. Now owning UTSTESTER brand.

Our Polymer Testing Equipment including:

- ✓ Plastometer
- ✓ Specimen preparation
- ✓ Thermal testing
- ✓ Flammability resistance
- ✓ Raw material testing instrument
- ✓ Mechanical testing equipment
- ✓ Aging testing

◆ **UTSTESTER Mission:** To help our clients benefiting from testing equipment investment.

◆ **UTSTESTER Vision:** To be China leading manufacturer in laboratory testing equipment and honorable brand in the world

◆ **UTSTESTER Values:** Integrity, Cooperation, Innovation, Efficient, Win-Win

Integrity: Integrity is the foundation of enterprise
Cooperation: Cooperation is the guarantee of team success

Innovation: Innovation is the driving force of enterprise development

Efficient: Customer-oriented to seize market opportunities, and efficient operation enables enterprises to lead the competition;

Win-Win: Create value for customers, create opportunities for employees, create wealth for society, and achieve a harmonious and win-win situation

◆ **UTSTESTER Business Philosophy**

Quality concept: Rigorous and pragmatic, excellence, attention to detail, and pursuit of excellence
Customer orientation: Customer first, create satisfaction, attentive service, and common development
Efficient operation: Reasonable configuration, concise and fast, effective implementation, continuous improvement
Staff achievements: Respect equality, care and sharing, grow together, harmony and happiness

COMPANY PROFILE

All of testing instruments are designed and produced strictly accorded with International standards, such as, ISO, ASTM, EN, DIN, JIS, GB, BS, SATRA, ANSI, UL, TAPPI, AATCC, IEC, VDE & CSA. CE, ISO 17025, CNAS Calibration Certificates can be provided if clients request.

With the competitive advantage products and considerate after sales services, UTS has built the long-term partner relationship with global famous testing organization, including SGS, UL, Bureau Veritas, Intertek and TUV. To make sure the high precision and definitive test result, our QC team debug and calibrate all of testers before delivery.

As the energetic brand in the global market, UTS aim at providing the trusted materials testing solutions which strictly comply with international standards to protect clients' brand and reputation, so as to help all of the consumers to find the valuable goods. We will keep on research, development, innovation and improving our pre-sales and after-sales services to benefit our clients.



2019 ITMA Italy Exhibition



2020 Colombia COLOMBIATEX



2021 Mexico EXINTEX Exhibition



2023 ITMA Spain Exhibition

◆ Plastometer & Raw material testing instrument & Specimen preparation

HP03-M Melt Index Meter(Mass Method)



HP03 Touch screen melt index meter used to measure the MFR value of various plastics and resins passing through a certain temperature and load in a viscous flow state, passing through a standard die melt flow rate every 10 minutes. It is suitable for polycarbonate, polyarylsulfone, fluorine, etc. Plastic, nylon and other engineering plastics, also suitable for polyethylene (PE), polystyrene (PS), polypropylene (PP), ABS resin, polyoxymethylene (POM), polycarbonate (PC) resin, etc., with low melting temperature Plastic testing is widely used in plastic production, plastic products, petrochemical and other industries as well as related universities, scientific research units and commodity inspection departments.

Standards

Determination of GB/T3682-2018 plastic thermoplastic melt mass flow rate (MFR) and melt volume flow rate (MVR)
ISO 1133:1997 "Determination of Thermoplastic Melt Mass Flow Rate MFR and Melt Volume Flow Rate MVR"
ASTM D1238 "Standard Test Method for Determination of Melt Flow Rate of Thermoplastics by Extrusion Plastometer"

HP03-MV Melt Index Meter(Mass and Volume Method)



HP03 Touch screen melt index meter used to measure the MFR value of various plastics and resins passing through a certain temperature and load in a viscous flow state, passing through a standard die melt flow rate every 10 minutes. It is suitable for polycarbonate, polyarylsulfone, fluorine, etc. Plastic, nylon and other engineering plastics, also suitable for polyethylene (PE), polystyrene (PS), polypropylene (PP), ABS resin, polyoxymethylene (POM), polycarbonate (PC) resin, etc., with low melting temperature Plastic testing is widely used in plastic production, plastic products, petrochemical and other industries as well as related universities, scientific research units and commodity inspection departments.

Standards

(1)GB/T3682-2018 "Determination of Melt Flow Rate and Melt Volume Flow Rate of Thermoplastics"
(2)ISO 1133: 1997 "Determination of melt mass flow rate MFR and melt volume flow rate MVR of thermoplastics"
(3)ASTM D1238 "Standard test method for melt flow rate of thermoplastics using an extrusion plastometer"

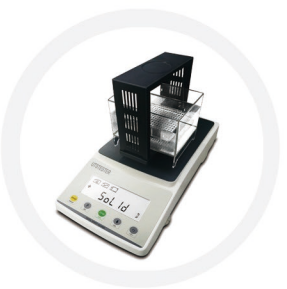
M096 Hydraulic Swing Arm Cutting Machine



For die cutting shoe upper, insole, plastic bags, hand bags, etc.

Cutting force 22 Ton
Cutting area 370 x 450mm
Motor 0.75kw
Stroke 90mm

HP06 Specific Gravity Tester



To measure the density for solidity.

Measuring range 210g
Minimum reading 0.001g
Test material Solid, liquid, powder, absorbent material
Material of equipment Aluminum bracket, acrylic water bath, aluminum case
Test Principle

The method of buoyancy based on Archimedes principle is adopted to measure the value accurately and directly.

◆ Thermal testing & Mechanical testing equipment

HP01 Brittleness Temperature Tester



Brittleness Temperature Tester is to determine the brittleness characteristic during low temperature testing for wire jacket and vulcanized rubber. Sample is impacted by impact head at a linear speed of $2 \pm 0.2m/s$ after sample fixed onto the test device is soaked into a medium at low temperature for 5 minutes. And then check whether the sample appears cracks, crevices, small holes and fragments at the lowest temperature.

Standards

ASTM-D746:2004-A, ASTM-D746 :2004-B, BS 903 A25:1992, GB/T15256-94, GB/T5470-2008(B Type), ISO 812-91, ISO 974:2000, JIS C3005-2000, JIS K 6723-1995, JIS K7216-1980 A Type, JIS K7216-1980(B Type), ASTM D2137-05

HP04 PVC Izod Impact Tester



PVC Izod Impact Tester is used to test the impact toughness of non-metal materials including plastic, reinforced nylon, glass steel, ceramics, plastics appliance, cast stone, electrical insulating materials, etc. Pendulum impact testing machine is a common device in scientific research units, universities, non metal materials manufacturers to carry out quality inspection. This machine is a kind of simple structure, convenient operation, high precision testing instrument. Digital impact test machine adopts high precision encoder technology, with high precision, good stability and wide measurement range etc. Digital measurements show the impact strength and the average energy loss, automatic correction, print test reports and other functions.

Standards

ISO180—2000 Determination of izod impact strength
GB/T1843—2008 Test method for impact testing of rigid plastic cantilevers
JB/T8761—1998 Plastic izod impact strength
ASTM D256-2010 Deternation plasitic IZOD pendulum impact strength

HP05 Charpy Impact Tester



It is mainly used in the determination of impact toughness of non-metallic materials such as hard plastic, reinforced nylon, glass steel, ceramics, cast stone and electric insulating materials. It is the ideal testing equipment for chemical industry, scientific research unit, tertiary institution, quality inspection and so on.

Standards

ISO179 GB/T1043 JB/T8762 GB/T 18743

HP07 Plastic Digital Display Tensile Impact Testing Machine



Digital display tensile impact testing machine is mainly used for the determination of impact toughness of hard plastic, reinforced nylon, glass fiber reinforced plastics, ceramics, cast stone, electrical insulation materials and other non-metallic materials. Is the chemical industry, scientific research units, colleges and universities, quality testing departments such as the ideal test equipment.

Standards

ISO179—2000, GB/T13525-92, ISO8256-1990, JB/T8762, ASTM D-1822

◆ Thermal testing & Mechanical testing equipment

HP08 Digital Izod and Charpy Combined Impact Tester

This instrument is a new multi-functional cantilever beam, simple beam integrated impact testing machine, simple disassembly fixture and sample fixed frame, cantilever beam, simple beam test method automatic switch, easy to use, simple operation, high test accuracy, mainly used in hard thermoplastic molding and extrusion materials. Determination of impact toughness of hard thermoset molding materials and non-metallic materials such as fiber-reinforced thermoset and thermoplastic composites.

Standards

ISO179-2000 "Plastics - Determination of impact strength of simple supported beams of Hard materials"
 GB/T 21189 < Testing of plastic simply supported beams, cantilever beams and pendulum impact testing machines for tensile impact testing >
 GB/ T1043-2008 "Rigid plastic simple supported beam impact test method"
 JB/ T8762-1998 "Plastic Simply supported beam Impact Testing Machine"
 GB/T 18743-2002 "Impact test method for simple supported beam of thermoplastic pipe for fluid Transportation" (applicable to pipe parts)
 ISO180-2000 "Plastics - Determination of impact strength of rigid cantilever beams"
 GB/ T1843-2008 "Rigid plastic cantilever beam impact test method"
 JB/ T8761-1998 "Plastic Cantilever beam Impact Testing Machine"
 ASTM D256-2010 "Test Method for Determining the Impact Strength of IZOD Pendulus in Plastics"

H015N DIN Abrasion Tester

The machine is used to test rubber and polyurethane to assess its wear resistance in everyday wear. The testing principle is very simple.

Standards

BS EN 12770, DIN-53516, SATRA TM174, BS 903-A9 Method A, ASTM D5963
 EN ISO 20344 section 8.3, AS/NZS 2210.2 section 8.3, ISO 4649, ISO20871
 GB/T 20991 section 8.3, GB/T 20265, GB20266-2006, GB/T 9867, QB/T2884
 JIS-K6369, JIS K6264-2

◆ Aging testing

M025BN UV Accelerated Weathering Tester

To simulate the destructive effect for materials from sunshine, moisture and temperature. Materials aging including fade, loss of gloss, low intensity, cracking, peeling, pulverization, and oxidation, etc. UV accelerated weathering tester simulate sunshine, condensation and natural moisture condition, and samples stay inside this condition can be equaled to stay outdoor for several months or years. The Fluorescent Ultra-Violet Lamp of UV aging chamber can reappear the effect of sunshine, Condensation and water spray system can reappear the effect of rain and dew.

Control Type Touch Screen Control

Standards

ASTM G 153, ASTM G 154, ASTM D 4329, ASTM D 4799,
 ASTM D 4587, SAE J2020, ISO 4892

D002A-3 Light Fastness Tester

To do color fastness to light and weather test in the color fastness test. Also available for coatings, paper, paint, paint, rubber, plastic, wood, etc.

Test chamber temperature range Standard configuration: 25 ~ 55 °C; Resolution: 0.1 °C

Optional configuration: 25-65 °C

Standards

ISO105-B02, ISO105-B04, AATCC TM16
 GB/T8430, GB/T 8427, GB/T14576
 GB/T15102-2006, GB/T15104-2006

UTS-3000 Water Cooled Light Fastness Tester

Light Fastness Tester(Water cooled) is designed to simulate light color fastness, light perspiration color fastness and light aging test by conducting solar radiation. Widely applicable for textiles, rubber, paint, coating, plastic, petrochemical industry, car, industrial products and other materials.

Set the inside chamber' s such conditions as light irradiance rate, mist spray, temperature, humidity, raining, etc. So as to determine the color fading, aging, alternating light and dark, transmittance, peeling, hardness, softness and other property changes of test materials.

Water-cooled Long Xenon Arc Lamp Rated Power 4500W| 6000W
 Exposure Area 2660 cm2 | 4700 cm2

Standards

Textile
 GB/T 8430, GB/T 12831, GB/T 14576, GB/T 8427, GB/T 1189, GB/T 9344, GB/T 16422.1, GB/T 1865, GB/T 2423.24
 ISO 105-B02/B04/B06, AATCC 169
 Artificial board
 AATCC TM 16, ASTM G26, ASTM D2565, ASTM D4459, ASTM D 6695, ASTM G155, SAE J1885,
 SAE J2412, SAE J2212, SAE J1960, SAE J2527, AATCC 169
 Automotive trim
 ISO 105, ASE J1884KJ, ISO 11341, ISO 4892, ISO 3917, ISO 11341, ISO 4892-2
 Leather
 PV 1303, PV 3929, PV 3930, DVM 0067- MA,
 HES D6601, HES D6601, NES M0135, TSL 0601G, GMW3414, EDS-T-7415, D47 1431

E001N Programmable Temperature and Humidity Chamber

To determine resistance to hot, cold, dry and moisture property for various material. Applicable for products quality management of electronic, electrical appliances, food, vehicles, metals, chemicals, building materials, etc.

Standards

ISO179-2000, GB/T13525-92, ISO8256-1990, JB/T8762, ASTM D-1822

| Model | Volume | Test space size (W×H×D)cm | External size (D×W×H) (cm) | Weight(kg) | Power supply |
|-------------|--------|---------------------------|----------------------------|------------|-----------------------------|
| E001N-80L | 80L | 40 × 50 × 40 | 133 × 75 × 172 | 180 | 1 Phase, AC 220V |
| E001N-150L | 150L | 50 × 50 × 60 | 149 × 70 × 155 | 210 | 50/60Hz |
| E001N-225L | 225L | 60 × 75 × 50 | 149 × 800 × 168 | 260 | 3 Phase, AC 380V 50/60HZ |
| E001N-408L | 408L | 80 × 850 × 60 | 159 × 100 × 185 | 330 | |
| E001N-800L | 800L | 100 × 100 × 80 | 179 × 120 × 197 | 450 | |
| E001N-1000L | 1000L | 100 × 100 × 100 | 199 × 120 × 197 | 500 | |

E004 Ozone Chamber

This series of test chamber produces high concentration of ozone by ozone generator, which can be used for aging test of non-metallic materials and organic materials (coating, rubber, plastic, paint, pigment, etc.) under ozone condition.

Standards

AATCC 109 & ISO 105 G03

◆ Flammability Tester

M099B Limiting Oxygen Index Tester(LOI)

Limited Oxygen Index Tester for the determination under the test conditions specified in oxygen and nitrogen gas mixture just to maintain a minimum sample combustion oxygen concentration required. This tester equipped with imported paramagnetic oxygen sensor and imported mass flow controller to make sure the measurement accuracy and durability. For the assessment of the performance of a homogeneous combustion of solid materials, laminates, foams, films and films under specified conditions.

Measuring range 0 ~ 100 % Resolution 0.1%
 Control accuracy ±0.2% (16%-50%) interval Response time < 1 S
 Oxygen concentration setting 0%-100 % touch screen direct setting
 Oxygen concentration range 0-100% British imported paramagnetic oxygen sensor, no need to replace
 Oxygen concentration resolution 0.1
 Oxygen flow range 0-20L/min Nitrogen flow range 0-20L/min
 Gas flow resolution 0.01 liters

Standards

GB/T 2406.2-2009, ISO 4589-2-2006, ASTM D2863, EN45545

◆ Flammability Tester



M099C Fully Auto High Temperature Oxygen Index Tester

The high temperature limiting oxygen index tester is used to measure the limiting oxygen index of rubber, high performance fiber, composite materials and so on under high temperature conditions. It can be used to evaluate the combustion performance of materials under high temperature conditions, so as to guide material research and development and provide data basis for product acceptance.

Measuring range 0~100% Working pressure 0.05~0.3 Mpa
 Heating wire nickel-chromium wire Heating wire diameter 0.55mm
 Maximum temperature 1100 °C Temperature range RT~1100 °C

Standards

GB/T 2406.3, ISO 4589.3

M102 NBS Smoke Density Tester



This equipment is designed specially for testing the smoke density.

Sensor range & precision 0~3000g; precision is 0.1g
Test chamber size 914 × 914 × 610 mm

Standards

FAR 25.853, ISO 5659-2, ASTM E662, BS 6401, GB/T 8323

M103 Cone Calorimeter

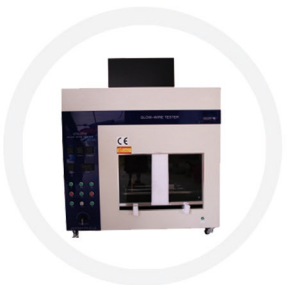


Cone calorimeter to determine the rate of heat release is a key measure needed to assess the risk of fires in materials and products. Quantification determines the size of the fire and the rate at which it develops.

Standards

ISO5660-1&2-2015, ASTM E1354-2015

TF01 Glow Wire Tester



Glow wire tester is to assess the fire hazard affected by thermal stress which is generated from the heat source of glow-wire component or overload resistance within short time. Widely applicable for testing fire hazard test for electrical and electronic products, household appliances and their materials, also non-flame ignition test, so as to determine the related materials' glow wire ignition temperature, flammability and flammability index. Applicable for Electrical equipment and its components and parts, solid electrical insulating materials and other solid combustible materials

Standards

IEC 60695-2-10; IEC 60695-2-11, IEC60695-2-13; IEC60695-11-2;
 GB/T5169.10-2006; GB/T5169.11-2006; GB/T5169.12-2006; GB/T5169.12-2006;
 GB 4706.; UL746A

TF02 Needle Flame Tester



Needle flame tester is made based on standards IEC60695, GB5169. Mainly used to simulate products internal generates small flame under the breakdown situation, and assess its ignition hazard. Applicable for testing flammability of electronic electrical equipment and its components and elements, solid electrical insulation or other combustible materials. Needle flame test method can be used for the situation when small parts or component are not suitable to do glow wire test or horizontal vertical combustion test method.

Standards

IEC 60695-2-2; GB/T5169.5

TF03 Horizontal and Vertical Flammability Tester



UTS-TF03 Horizontal and vertical flammability tester is to determine the linear burning rate and the afterflame/afterglow times, as well as the damaged length of specimens. They are applicable to solid and cellular materials that have an apparent density of not less than 250kg/m³, determined in accordance with ISO 845. They do not apply to materials that shrink away from the applied flame without igniting.

The standard IEC 60695 UTS-TF03 met, specifies a small scale laboratory screening procedure for comparing the relative burning behaviours of vertically or horizontally oriented specimens made from plastic and other non-metallic materials, exposed to a small-flame ignition source of 50W nominal power.

Standards

GB/T5169.16-2008(IEC60695-11-10)
 GB/T5169.17-2008(IEC60695-11-20)
 GB/T5169.22-2008(IEC60695-11-4)
 GB/T5169.15-2008(IEC60695-11-3)
 GB2408-2008
 UL 94, ISO 9772.3,ASTM D635/3801/4804/4986

TF04 Tracking Index Test Equipment



Tracking index test equipment is to determine the proof and comparative tracking indices of solid insulating materials on pieces taken from parts of equipment and on plaques of material using alternating voltages.

Standards

GB4207, IEC60112

M015N 45 Degree Automatic Flammability Tester



To determine textile damaged area and length at 45 degree condition and the times of touching flame when textile is melted to specified length after heated at 45 degree condition.

Stainless steel test cabinet with glass observation panel provided with automatic timing of flame spread in 0.1 second increments from ignition. Automatic or manual flame impingement for 1,5 or 20 seconds.

Standards

16 CFR 1610; ASTM D1230; CA TB117; GB/T 14644; JIS L1091

◆ Flammability Tester

M016A Horizontal Flammability Tester



To determine the horizontal burn rates and burn resistance of textiles, particularly those for automotive interior use. It is the flammability test about the required time which flame spreads at horizontal direction to the specified distance.

Standards

ISO 3795; JIS D1201; FZ/T 01028; GB 8410; GB/T 20953; FMVSS 302 ; SAE J369; GMW3232; ASTM D5132

M017A Vertical Flammability Chamber



Vertical Flammability Chamber is to determine the flammability resistance property for various flame retardant textiles, including woven fabric, knitted fabric, coating products, laminated products, etc. And measure tendency for textiles for continued combustibility, smoldering and carbonization.

Standards

CFR1615/1616; CA TB117 CPAI 84; GB/T5455; GB/T13488/13489; GB/T 2408; ISO1210; ASTM D6413

M017B Multi-Purpose Flammability Chamber



Mainly used to test the flammability property for nightwear.

Standards

BS 5722; BS 5438 BS EN 532, 533, BS EN 1103, BS EN ISO 6940, 15025, EN ISO 6941, EN71, ISO 10047, DIN 53438, GB/T 5456, GB/T 5456, 8745 GB/T 8746

M017D Curtain Vertical Flammability Chamber



Curtain burning tester, mainly used in NFPA 701 Method 1, is used to test the flame retardant properties of hanging fabrics such as curtains and curtains. Applicable to single or multiple layers of fabrics, but not to fabrics with a grammage greater than 700 g/m² (21 oz/yd²).

Standards

NFPA 701: 2004 & 2009 Edition Test Method 1

M017E Large Hanging Fabric Combustor



Large Hanging Fabric Combustor , mainly used in NFPA 701 Method 2, is used to test the flame retardant properties of hanging fabrics such as curtains.

Standards

NFPA 701: 2004 & 2009 Edition Test Method 2

M036 Gas Fume Chamber



To determine the colorfastness resistance to chemistry of butane gas or exposed atmospheric nitric oxide generated from combustion of natural gas for all of textiles not including loose fiber.

Standards

AATCC 23, ISO 105-G02, GB/T 11039

M105 Blanket Flammability Tester



To determine the ignition resistance property of blanket fabrics and surface flame spread performance of fabric. A standardized flame is applied to the surface of specimen for a special time under controlled conditions and burning, changing, or discoloration of a paper monitor is noted to classify flammability of tested fabric.

Standards

ASTM D4151

M106 Surface Flash Tester



To determine the flammability property for fluff or fur fabrics (except floor coverings). The fast spread of flame over the surface of the material without ignition of its basic structure, is usually applied to pile or fur fabrics. Swiveling butane burner is traversed across the face of the fabric to determine whether surface flash occurs and to record any damage to the base fabric.

Automatic gas and timing control system include solenoid control gas valve and automatic ignition timer and controls.

Standards

BS 4569