AdLab
Total Testing Solutions

Carbon Arc Aging Tester
Model: ADL-LF80

Material Aging Fading Performance Test

The carbon arc aging tester generates arc illuminating by alternating current to illuminate the carbon rod. After passing through the filter, the light source has a higher irradiation energy than the sunlight, so that when the surface of the sample is irradiated by light source, the aging of the sample can be accelerated. At the same time, because the tester is equipped with a sprinkler, in addition to simulating the sun solarization, it can also simulate the rain environment, that is, the weather resistance of the sample can be well tested by the acceleration method.

Carbon Arc Aging Tester

- In daily use, the material may be exposed to outdoor sunlight, glass windows or indoor artificial light for long time or wet by rain, causing fading, yellowing or changes in physical properties such as strength. We call the process natural aging. The tester can evaluate the anti-aging properties of materials more quickly than natural aging tests.
- It adopts an electric light source that emits a discharge arc and emits light when the two carbon rods are in contact with each other after being energized in the air. It is the core component of carbon arc weather-resistant equipment. It consists of 4 pairs of carbon rods. The upper carbon rod is thick and the lower carbon rod is thin. The carbon rod is surrounded by the filter lens. The carbon arc lamp source passes through the filter lens to generate light of various wavelengths similar to sunlight, and radiates to the surface of the test sample. And the distance between the upper and lower carbon rods is controlled by the carbon rod up and down moving drive device, so as to ensure that the carbon arc voltage and current are stable within the standard error range.

Standards Compliant

JIS A1415, JIS L 0842, B7753 D0205, G3312, H86885, K2246, K5400, Z9117, ISO4892-1, ASTM G23, AATCC, NCCA

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Carbon arc aging tester
ADL-LF80

Several Major Features

Smart touch screen control panel

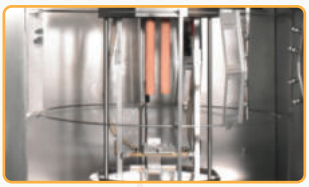
Microcomputer control system, more efficient and reliable, programmable 7-inch color LCD touch screen, to achieve control, detection, calculation, data display and other functions.

Powerful software functions

The enhanced control system can handle complex custom programs and simple pre-programmed tests. The simple icons on the operation page are clear and easy to understand; the irradiance, temperature and humidity can be programmed to change step by step to meet various test requirements of users.

Multi-directional protection design

The instrument is equipped with current and voltage, water quality monitoring, temperature monitoring, water flow monitoring, lack, over temperature, and leakage protection, etc., to ensure the safety of equipment and personnel.



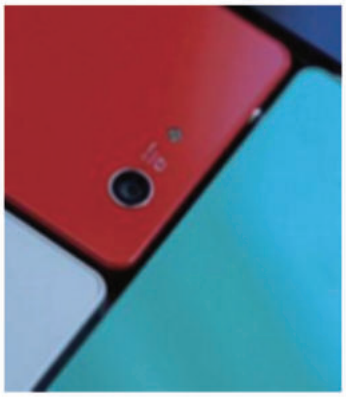
Large test area

Imported carbon arc lamp, large experimental box, and up to 75 samples can be tested at a time. The sample holder can be rotated to improve the exposure consistency of all samples.

Imported carbon arc lamp

The instrument's carbon arc lamp uses imported accessories, Long life, stable performance and good test repeatability.

Field Application



Carbon arc aging tester,is widely used in plastics, paint coatings, inks, packaging, automotive materials, actinic materials, pigment dyes, textiles and other fields.

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It is applicable to the performance verification of new products, quality control of the production department, and the of material properties for the third-party testing organization, the product performance verification laboratory, and the quality and technic al supervisiondepartment, etc.

Configuration Parameter

Standard Configuration

Filter

Blackboard thermometer test

Upper Carbon rod

Lower Carbon rod

Sample holder

Optional Accessories

Pure water machine

Air compressor

Gray color card

Technical Parameters

Control mode: automatic	Sample size: 150mm × 70mm, the maximum number
Carbon arc lamp continuous lighting time: 78H	Sample size: 150mm × 70mm, the maximum number Rotation speed of sample rotation frame: 1RPM
Carbon arc lamp discharge voltage: 50V±2V	
Carbon arc lamp discharge current: 60A±2A	Diameter of sample rotation frame: 960mm±6mm
Carbon arc light source illuminance: 255W/㎡	Distance from the center of the arc to the surface of the specimen: 480mm±3mm
Blackboard temperature: 63°C ± 3°C or 83°C ± 3°C	
Water spray pressure: 0.08Mpa-0.13Mpa, per minute Water quantity: 2100ml±100ml, water temperature: 16°C±5°C	Weight: 375kg
	Power supply: 380V 50Hz
Humidity of studio: 50%RH±5%RH	Dimension: 150cm×150cm×220cm

**Technical Data Subject to change without notice.*

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AdLab is a globally recognized brand specializing in the manufacturing and supply of high-quality laboratory equipment and textile testing instruments. With over 15 years of experience, we are committed to delivering precision-engineered solutions that meet the needs of industries such as textiles, pharmaceuticals, research laboratories, and educational institutions. Our products are designed to enhance efficiency, accuracy, and reliability in scientific and industrial applications.

Our Skill

At AdLab, we combine expertise in precision engineering with advanced laboratory technology to create innovative and reliable testing instruments. Our team of skilled professionals continuously works on improving product designs, integrating the latest advancements in technology, and ensuring compliance with international quality standards. With a strong focus on research and development, we provide customized solutions that cater to the unique needs of our customers worldwide.

Our Products

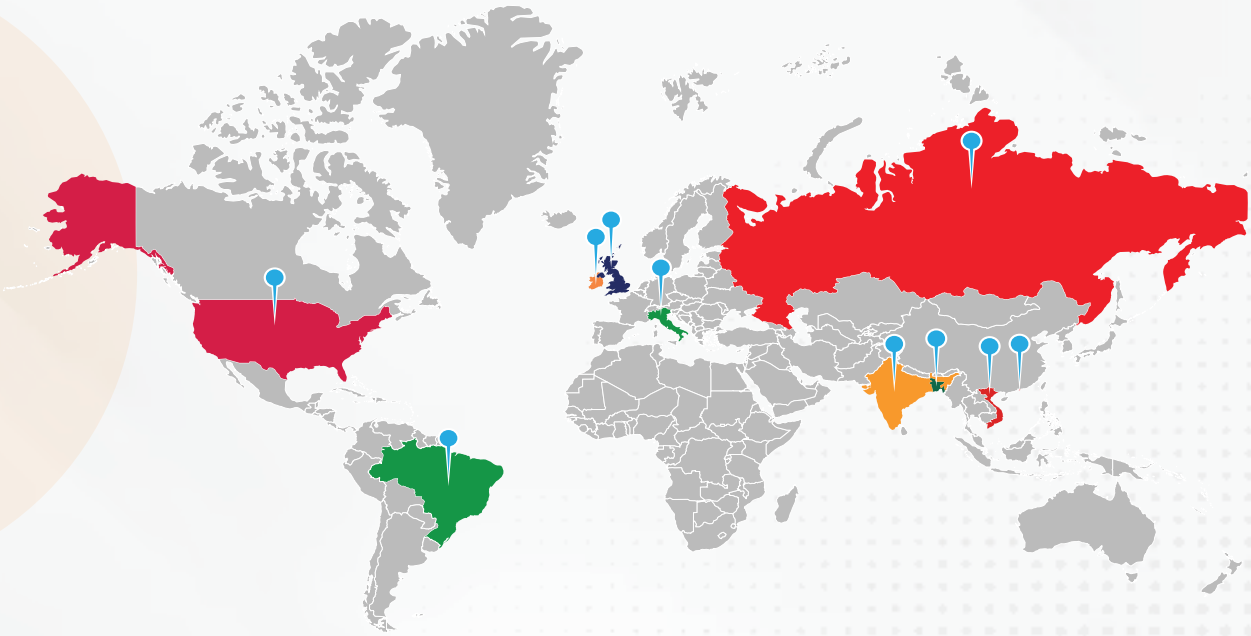
AdLab offers a wide range of high-quality laboratory and textile testing instruments, including Yarn & Fiber Testing Instruments, Laboratory Fume Hood Chambers, Ovens & Incubators, Water Baths, Textile Testing Instruments, Dyeing & Finishing Machines, Ceramic Testing, Tensile Testing, Washers & Dryers, Needle Detectors, and In-House Testing Equipment. Designed for precision and efficiency, our products ensure accurate testing and reliable performance across various industries.

Our Services

At AdLab, customer satisfaction is our top priority. We provide comprehensive support services to ensure the smooth operation of our equipment, including:

- ✓ 24/7 Technical Support Team – Our highly trained technical support team is available around the clock to assist with troubleshooting, maintenance, and operational guidance. Whether you need immediate assistance or expert advice, we are always ready to help.
- ✓ Installation & Training – We offer professional installation services and hands-on training to help users operate our equipment efficiently.
- ✓ Calibration & Maintenance – Regular calibration and maintenance services ensure that your laboratory instruments remain accurate and in optimal working condition.
- ✓ Customized Solutions – We provide tailored solutions to meet specific industry requirements, helping our clients achieve maximum efficiency in their operations.

Global Networks



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