TORONTECH

XENON ACCELERATED WEATHERING TEST CHAMBER

Xenon accelerated weathering test chambers are specialized equipment used to simulate the effects of long-term exposure to sunlight, heat, and moisture on various materials and products. These chambers use xenon arc lamps to replicate the full spectrum of sunlight, including ultraviolet (UV), visible light, and infrared radiation, making them ideal for assessing the durability and performance of materials under conditions that mimic natural weathering.

Compare Xenon Accelerated Weathering Test Chamber Options

Side-by-side overview of Torontech xenon arc weathering chambers to simulate sunlight, heat, and moisture for accelerated durability and performance testing.

ToronXTC™ Xenon Accelerated Weathering Test Chambers

Feature	ToronXTC™-1000	ToronXTC™-1000H	ToronXTC™-2200H	ToronXTC™-2800H	ToronXTC™-6500H	To
Primary purpose	Accelerated weathering with xenon arc light to evaluate material durability	Accelerated weathering with enhanced configuration for higher-demand testing programs	Higher-capacity xenon weathering for expanded test throughput (series dependent)	Xenon weathering chamber option for larger programs and broader sample loads	High-capacity xenon weathering platform for intensive durability test workflows	Co vo (4 co ac ex
Best for	Routine accelerated exposure testing in QC and product development	Labs needing a step-up configuration compared to baseline models	Facilities needing higher throughput for frequent durability programs	Teams running larger test plans needing more chamber capacity	High-volume labs and manufacturers requiring large-scale accelerated weathering	La de siz sa eff

Feature	ToronXTC™-1000	ToronXTC™-1000H	ToronXTC™-2200H	ToronXTC™-2800H	ToronXTC™-6500H	To
Typical test factors	Sunlight simulation (UV/visible/IR), heat, and moisture exposure to mimic outdoor weathering					
Typical applications	Plastics, coatings, textiles, automotive parts, building products (application dependent)	Plastics, coatings, and durable goods requiring more robust accelerated programs	Materials and products needing repeated exposure cycles and higher throughput	Programs needing expanded capacity for multiple materials or batches	High-volume production validation and long-term durability qualification	La co for ac we
How to choose	Choose when you need a baseline xenon chamber for standard accelerated weathering	Choose when your program needs a higher-spec option than the baseline 1000 model	Choose when you need more chamber capacity than the 1000 class for throughput	Choose when your testing volume and sample load require a larger platform	Choose when your lab needs the largest capacity option for intensive programs	Ch de ch ma typ an
Selection tip	If you are building a standard weathering capability, start here	If you need a step-up model for heavier use or expanded control, choose this	If your queue is growing and you need more throughput, move up to this class	If you run multiple product lines and need more capacity, this is the upgrade path	If accelerated weathering is a core lab function at scale, choose the highest capacity	If y ba wit ch ca fit

Quick selection guide: pick the chamber based on sample volume, required throughput, and test program intensity. Lower models fit routine QC, while higher-number H models typically suit larger or heavier-use durability programs.

APPLICATIONS

Key Applications:

1. **Material Testing:** Evaluating the colorfastness, fading, and degradation of textiles, plastics, and paints.
2. Testing coatings, adhesives, and sealants for UV resistance and longevity.
3. **Automotive Industry:** Assessing the weatherability of automotive parts like dashboards, seats, and exterior coatings.
4. **Packaging Industry:** Testing packaging materials for stability under prolonged exposure to light and humidity, ensuring product safety and shelf life.
5. **Construction Materials:** Testing the durability of roofing materials, faÃ§ade components, and flooring against UV and moisture.
6. **Cosmetics and Pharmaceuticals:** Assessing the photostability of products and packaging to ensure efficacy and compliance with regulatory standards.
7. **Electronics and Consumer Goods:** Evaluating the performance of outdoor-use electronics, garden furniture, and other consumer products subjected to weather conditions.

FEATURES

Advantages of Xenon Test Chambers:

1. They provide realistic simulation of natural sunlight, offering accurate predictions of product lifespan.
2. Conditions like temperature, humidity, and light intensity are precisely controlled.
3. They enable rapid testing, compressing years of natural exposure into days or weeks of testing.
4. This makes them an essential tool for quality assurance, product development, and compliance with international standards like ISO 4892, ASTM G155, and SAE J2412.

TORONTECH.com

TORONTECH

Torontech Inc.
251 Consumers Road, Suite 1200
Toronto, Ontario, M2J 4R3, Canada

Phone: +1 416 368 2721 | Fax: +1 416 981 7652
Email: info@torontech.com

Torontech, LLC
601 Brickell Key Drive, Suite 700
Miami, FL 33131, USA

Toll-Free: 1-866-383-7919
Email: sales@torontech.com

Torontech ME FZE
Meydan Grandstand, 6th Floor,
Meydan Road, Nad Al Sheba,
Dubai-261440, UAE

Phone: +971 488 19252
Email: me@torontech.com

USA | Canada | EU | UAE | GCC | KSA | India | Africa | Latin America | Asia