



Weather Meters



Products and materials that surround us in our everyday lives are fated to deteriorate and meet their end by being exposed to many different forms of weather environments such as light, rain, wind, and a variety of different temperature and humidity conditions.

Various researches are conducted in order to accurately predict the deterioration of these materials.

As a professional manufacturer of weather meters and weather meter lamps, Suga Test Instruments continues to grow as a global enterprise by assimilating its knowledge and experiences it has cultivated over the years and by responding to the needs of customers.

Representing Japan with determination since its foundation, Suga will continue to be the enterprise that serves the society through our "Suga-only" products.



Achieving supremacy as the expert maker of weather meters.



CONTENTS

Outdoor Exposure Testing: Correlation and Acceleration3-4 Putting Weather Meters into Use
 1. Global Standard Test Instruments Xenon-arc Sunshine carbon arc UV fluorescent lamp UV carbon arc
2.Super Accelerated Weather Meters 10 • Metal halide arc • Plasma • Spectral aging
 3.Other Irradiation Instruments Examples of custom designs Mercury vapour lamp Super fluorescent lamp
4.Radiometer 15
Correlation between Outdoor Exposure and Weather Meters
Typical Standards for Weather Meters

Please inquire us additionally about transportation, installation and other supplementary works. Also there are locations where some of our products cannot be exported. For more details, please contact our international sales department. i_sales@sugatest.co.jp



SX75 7.5kW Super Xenon Weather Meter

The paramount of world standard

This model is capable of super-accelerated tests with ultraviolet irradiance three times stronger (180W/m²) than that of sunlight, meeting the expectation of today's high-speed product development.

Light source	Xenon-arc lamp WX7.5 (7.5 kW water-cooled type)
Test types	Light only, light & spray on front face (rain), dark only, dark & spray on back face (dew), dark & spray on both faces
Irradiance	60 to 180 W/m ² at 300 to 400 nm filter requirement example: daylight filter
Temperature and humidity range	Light test : 50 to 95 \pm 1 °C of black panel temperature (BPT; depending on the level of irradiance), 50 to 60 \pm 5 %rh(at 63 °C of BPT and 180 W/m²)
	Dark test: 38 ± 1 °C of chamber temperature, 95 ± 5 %rh
Number of specimens	Maximum 54 pieces (150 × 70 × 1 mm)
External dimension of the instrument	Approx. width 105 cm, depth 135 cm, height 204 cm [weight: approx. 570 kg]

This product is also available as CE model upon request(SX75CE).



GX25 2.5kW Xenon Weather Meter

A compact model with excellent cost performance

This model is used for wide range of materials, such as fabrics, wrappings, and cases for cosmetics.

Light source	Xenon-arc lamp WX2.5* (2.5 kW water-cooled type)
Test types	Light only, dark only
Irradiance	40 to 60 W/m² at 300 to 400 nm filter requirement example: daylight filter
Temperature and humidity range	Light test: 45 to 110 ± 2 °C of black panel temperature (BPT; depending on the level of irradiance); 30 to 50 ± 5 %rh (at 63 °C of BPT and 42 W/m²)
	Dark test: 38 ± 2 °C of chamber temperature, 95 ± 5 %rh
Number of specimens	Maximum 108 pieces (65 × 55 × 1 mm)
External dimension of the instrument	Approx. width 100 cm, depth 115 cm, height 180 cm [weight: approx. 400 kg]

^{*}An air-cooled model XA25 is also available.



XT750 750W Table Sun

A tabletop Xenon Fade Meter

This is a tabletop weather meter optimal for small specimens such as medical products, paper, cosmetics, pharmaceuticals, food, and stationery.

Light source	Xenon-arc lamp AX0.75*1 (750W air-cooled type)
Test type	Light only
Irradiance	2,000 to 30,000 lx [equivalent to 10 to 138 W/m² (300 to 700 nm)] (filter / #275)
Temperature range	Approx. RT +10±2 °C (RT: room temperature over 25°C)*2
Specimen stage area	25×25cm (irradiance distribution within ±10 %)
External dimension of the instrument	Approx. width 99 cm, depth 65 cm, height 57 cm [weight: approx. 90 kg]

*Other models available

- •X75: capable of testing multiple specimens at once with its large specimen rack and irradiance adjustable between 25 and 70 W/m²
- •XL75: a low-temperature cycle model (12 to 50°C) optimal for specimens sensitive to heat
- *SX2D-75: a single unit with two independent chambers combined, allowing for test with different conditions performed simultaneously

^{*}Other test types are also available.

This product is also available as CE model upon request(GX25CE).

 $^{^{*1}}$ 1,500 W lamp (40,000 to 100,000 lx) model is also available. *2 A model with a refrigerator capable of 25 $^\circ$ C tests and 60 $^\circ$ C tests is also available.





 Head Office
 5 - 4 - 14 Shinjuku, Shinjuku-ku, Tokyo, 160-0022, Japan
 phone +81-3-3354-5221
 fax +81-3-3354-5275

 Hidaka / Kawagoe Factoro
 1973 - 1 Takahagi, Hidaka-shi, Saitama, 350-1213, Japan
 phone +81-42-985-1661
 fax +81-42-989-6626

 Suga Europe
 11 Lovelace Road, North Oxford, Oxfordshire, OX2 8LP, UK
 E-mail _sales@sugatest.c-jp

 Nagoya branch
 1 - 605 Yashirogaoka, Meito-ku, Nagoya-shi, Aichi, 465-0051, Japan
 phone +81-52-701-8375
 fax +81-52-701-8513

 Osaka branch
 3 - 23 Enokicho, Suita-shi, Osaka, 564-0053, Japan
 phone +81-6-386-2691
 fax +81-6-386-5156

 Hiroshima branch
 2-12-11 Kannonhonmachi, Nishi-ku, Hiroshima-shi, Hiroshima, 733-0033, Japan
 phone +81-82-296-1501
 fax +81-82-296-1503