

UVSCALE

Visualizes UV light amount distribution by color density.



Features

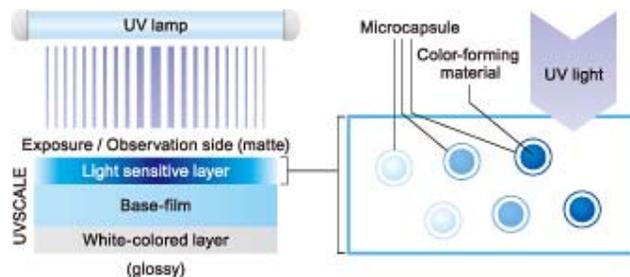
Structure and how it works

Structure

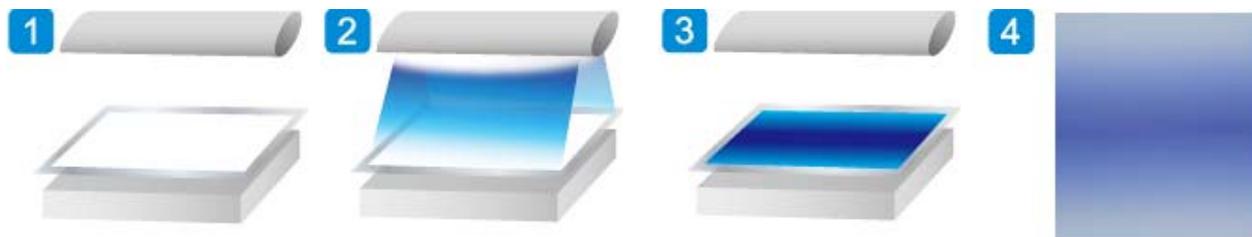
One side of the base film has a UV light sensitive layer; the opposite side has a white-colored layer. The light sensitive layer changes color according to the amount of UV light it receives, so the amount of light distributed on the exposed surface is easily seen by observing the light sensitive layer and white-colored layer attached to the base. Since the color density of the white-colored layer corresponds to the amount of UV light received, the amount of light distribution on the light receiving surface can easily be investigated.

Principle

The color forming material in the microcapsules reacts to the UV light and changes color.



How to use



1 After cutting UVSCALE to the required shape (length), place it on the location that you want to measure.

2 Operate the equipment or device, and expose UVSCALE to UV light.
* The side of UVSCALE with matt surface should be exposed.

3 Operate the equipment or device, and remove UVSCALE from the exposure device.
* The side of UVSCALE with matt surface should be exposed.

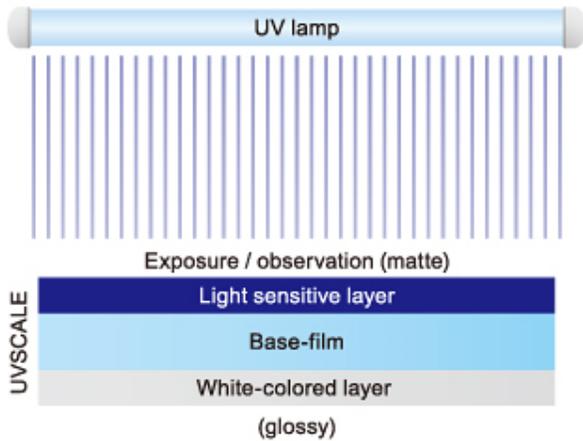
4 Remove UVSCALE, and determine the distribution of light by observing the color distribution.
* Use the matte side for observing.

Reducing light film

In order to cover a range of accumulated light, we offer the product in three types.

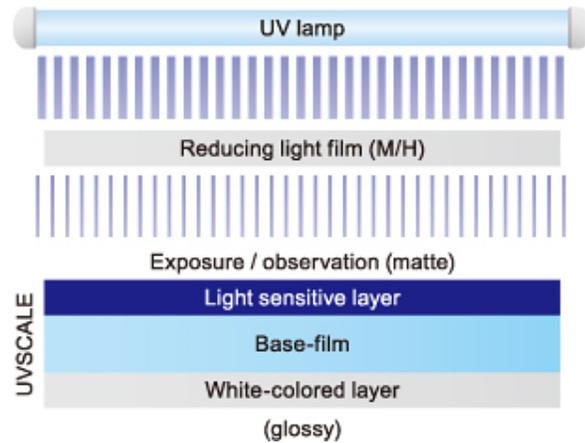
① Mono sheet type (L)

For low levels of light, UVSCALE can be used alone.



② Two sheet types (M/H)

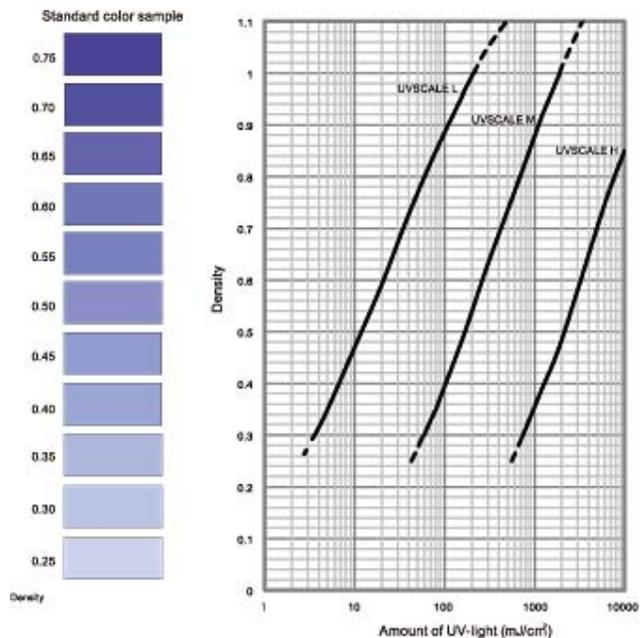
For medium to high levels light, use UVSCALE M or H. These are two sheet types, where a reducing light film is placed over UVSCALE.



Standard color chart

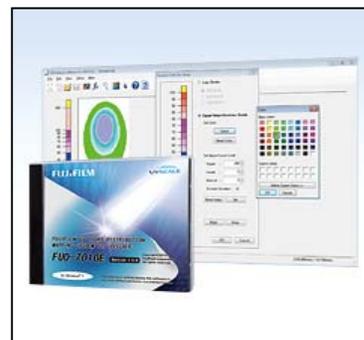
[High pressure mercury lamp]

The following are the color characteristics generated by a high-pressure mercury lamp. However, please note that these color characteristics are values generated by using FUJIFILM light source and devices. There may be differences in the color density for a given amount of light due to differences and variations in individual lamps or environments.



UV Light Distribution Mapping System FUD-7010E

Management by Converting colors into numeric values with analysis system



Management by converting colors into numeric values with analysis systems

In this system, exclusive analysis software is used along with a usable scanner*. The system makes it possible to scan the color of UV scales, convert it into UV light amount values, analyze UV light amount distribution, then save them.

*Scanners are sold separately and customers are to purchase them on their own.

Advantages of management with numerical values

Analysis

The accuracy of density separation can be improved, so sections that cannot be visually judged can be analyzed.

Standardization

Internal inspection standards can be set.

Sharing

Analysis results can be shared.

Data saving

Digitizing data makes it possible to compare it to past data.

System Configuration

Exclusive software (CD-ROM)

Converts UVSCALE density values into UV light amount.



Dedicated Cover

This manuscript hold-down scanner cover improves date-read precision.

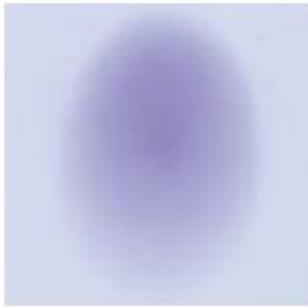


Calibration Sheet

The calibration sheet limits scanner-read errors to a fixed range.



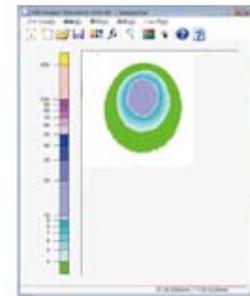
How to use an analysis system



①Irradiate light to a UVSCALE.



②Set UVSCALE on the scanner (recommended model) and scan the color sample.



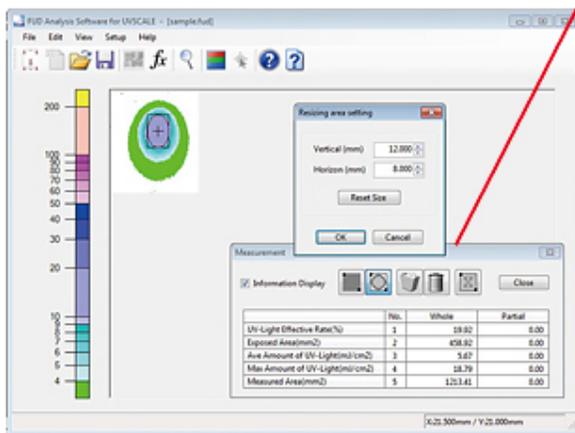
③Analyze it on a PC in which the exclusive software has been installed.

Analysis system measurement features

Measuring light amount

The imported data is converted into numerical values.

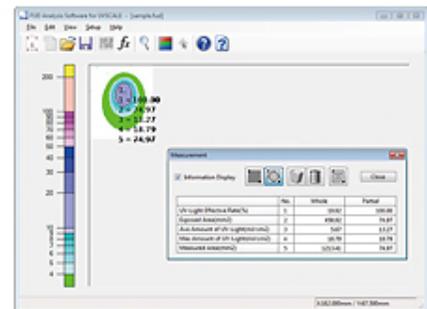
The measurement data of the entire section and specified section is displayed with a rectangle or circle.



UV-Light Effective Rate (%)	Percentage of the area that is between the displayed lower-limit division color bar and the upper-limit division color bar inclusive
Exposed Area(mm ²)	Area where color came out
Ave Amount of UV-light(mJ/cm ²)	Average light amount in the measurement range
Max Amount of UV-light (mJ/cm ²)	Maximum light amount in the measurement range
Measured Area (mm ²)	Area of the measurement range



Measurement data of the specified section is displayed.



Please visit our website if you need any further information!

- Application Examples & Free samples



- Product information – UVSCALE

http://www.fujifilm.com/products/industrial_products/uvscale/