

FADE PROTECTION METER

Featuring FPF (Fade Protection Factor) &
SHGC Value (Solar Heat Gain Coefficient)

MODEL# FP3450



The Fade Protection Meter is an energy transmission tool that demonstrates the performance of transparent glass or windows in several different aspects. The instrument has been specially calibrated to demonstrate the UV Transmission, Fade Protection Factor (FPF) and estimated Solar Heat Gain Coefficient (SHGC) values for transparent Low E and clear windows. The light sources and sensors are all contained inside the instrument. There are no adjustments required to operate the FP3450. Simply plug in the power cord and slide the glass sample into the opening and watch the resulting performance data appear on the display. The bright, multi-colored LED displays make the results easy to see. A convenient kickstand on the back of the enclosure allows the instrument to stand up so the resulting values can be easily displayed to a group of people---perfect for showrooms, trade shows, and meetings with groups of people. Perform LIVE demonstrations of the performance of your Energy Efficient window products. Simple, fast and convincing; this instrument will place your sales demonstrations a level above the rest! Never before has a demonstration tool been capable of showing such important performance values! The SHGC calibration on this instrument is not intended for use with tinted, colored or reflective (mirrored) glass.

FEATURES:

- Three performance values displayed simultaneously (UV/FPF/SHGC)
- Bright multi-colored LED displays for easy viewing from a distance
- Single, double or triple pane testing easily accomplished
- Test any sample width up to 2" thick
- Sash/spacer depth up to 1.375"
- No additional light sources needed
- Auto-calibration at start-up: NO manual adjustments required
- Powered by a 9-volt DC power pack (supplied)
- 10' extension cord available as an option (#PR3420)
- Kickstand to allow instrument to stand up for easy viewing
- Continuous measurements
- Professional image, yet simple operation
- Portable convenient size
- Protective, custom carrying case

FADE PROTECTION FACTOR (FPF)

Fade Protection Factor (FPF) helps you determine the level of UV protection you need in your windows. It was developed to help dealers and consumers understand how the percentage of UV blocked and fading due to UV exposure relate to each other. Like Sun Protection Factor (SPF), a higher FPF number means more fade protection for cherished home furnishings. FPF is calculated by replacing the "time to redness" measurement in SPF or UPF with a "time to fade" factor applicable to typical household furnishings. The factor is determined using ISO 105-B01 Textile Test for Color Fastness. The FPF number represents the increase in exposure time to UV light (versus unfiltered UV light) until fade is typically noticeable in household furnishings.

The concept of FPF was created and tested by Guardian Industries. Third party testing was completed by Atlas Weathering Service Group. The calibration of the FPF value for this instrument was completed based on the raw data supplied by Guardian Industries.

BASIC OPERATION

Place the FP3450 on a flat, stationary surface where you intend to conduct your measurements. Flip open the kickstand on the back side of the enclosure and allow the instrument to rest firmly on the kickstand. Allow enough room for the glass samples to lean into the opening. There is no power switch for the instrument. The unit is powered by a 9-volt DC power supply (1.3 Amp rating). To turn the instrument on, simply plug the power supply into the wall and the other end of the cord into the FP3450. The power connector is located on the left end of the instrument. After powering up the FP3450, allow the system to self-calibrate (designated by two (2) dashes in the display areas). After each of the displays show 100%, you can place your sample into the opening to measure the performance characteristics. You can hold the glass sample in place with your hand. You can also lean the glass sample into the opening, allowing the glass to rest against the opening in the FP3450. This will facilitate a hands-free demonstration. PLEASE NOTE: the instrument is designed to test small window samples. Do not rest large, heavy windows against the opening of the instrument, as this could permanently damage the kickstand.

HELPFUL REMINDERS

Here are a few helpful reminders for conducting transmission measurements. Always hold the glass perpendicular to the opening. Do not tilt the glass at angles. For the most accurate transmission measurements, the glass should be held perpendicular to the sensors. It is also recommended that the samples being tested are positioned in the center of the opening. Be aware that fingerprints on the glass can affect the resulting measurements.

When you slide the glass into position, move the glass all the way into the opening, resting against the stop location. Pay attention to the spacer/sash of your window. Make sure the glass is slid far enough into the opening so the spacer/sash is not blocking one of the sensors.

The instrument will continually monitor its calibration during measurements. If the instrument detects any problems with the calibration, it will reset itself in between measurements. If you mistakenly turn the instrument on with a piece of glass already in position, the displays will calibrate to read 100% with the glass in place. Simply remove the glass sample and wait a few moments. The displays will identify the fault condition by registering a high reading (“HI”). The instrument will re-calibrate itself (indicated by two (2) dashes in the display areas) shortly after the glass is removed. After the displays have returned to 100%, you may continue with your measurements.

If the frame of your window sample is blocking one of the sensors from receiving a signal, that display will register a “0” value. Make sure the frame of your window sample is not blocking any of the three sensor locations. If you forget to remove the window sample when the instrument is turned on AND the frame of the window sample is blocking any of the sensors, the displays will lock in a chasing segments routine. Simply remove the window sample from the opening and the chasing segments routine should stop after only a few seconds.

SPECTRUM SPECIFICATIONS

In addition to the FPF and SHGC value of your window, the FP3450 displays energy transmission values in the UV(A) spectrum. The light source used for the spectrum has a peak response at the following wavelength:

UV: 365nm

WARRANTY

The manufacturer warrants all models of the FP3450 to be free from defects in material and workmanship under normal use and service as specified within the operator's manual. The manufacturer shall repair or replace the unit within twelve (12) months from the original date of shipment after the unit is returned to the manufacturer's factory, prepaid by the user, and the unit is disclosed to the manufacturer's satisfaction, to be thus defective. This warranty shall not apply to any unit that has been repaired or altered other than by the manufacturer. The aforementioned provisions do not extend the original warranty period of the unit which has been repaired or replaced by the manufacturer. Batteries are not covered by warranty.

EDTM, Inc. assumes no liability for the consequential damages of any kind through the use or misuse of the FP3450 product by the purchaser or others. No other obligations or liabilities are expressed or implied. All damage or liability claims will be limited to an amount equal to the sale price of the FP3450, as established by EDTM, Inc.