

Using the ETEKT+ Low-E Detector

The ETEKT+ Low-E detector is used to detect the presence and location of a Low-E coating or any other conductive coating on or within a window assembly.

The ETEKT Low-E detector is:

- optimized for the analysis of double pane windows with air spaces between 1/4" and 1/2" but can also be used on single pane windows
- a simple device with one button to press and 3 LED lights to indicate the location and presence of a conductive coating



Figure 1: ETEKT+ LowE Detector

Operating Conditions Required for Using the ETEKT+

1. **The glass will need to be clean for accurate measurements.** This instrument detects the presence of an electrically conductive coating in/on a window. All Low-E coatings are conductive, unfortunately, so is pollution. Measurements on dirty windows may result in false readings.
2. **Do not operate the ETEKT+ within two inches of window frame or any other metallic window component.**

Measuring Procedure for Double Pane Window Assemblies

1. **Place the smooth backside of the meter (the surface opposite the activate button) against the glass.**
2. **Press the activate button.** Some or all of the LED lights will light up. A double pane glazing assembly is numbered from 1 to 4 from the outside to the inside surface (*Figure 2*).
 - **When the yellow NEAR LED light is lit, the meter is detecting the LOW-E coating on the near surface of the glass.** The near surface is the pane of glass the meter is contacting, but on the interior opposite side (*Figure 3*). For example, if the detector is placed on the #4 inside surface, the LowE coating is located on the #3 surface when the NEAR LED light is lit.

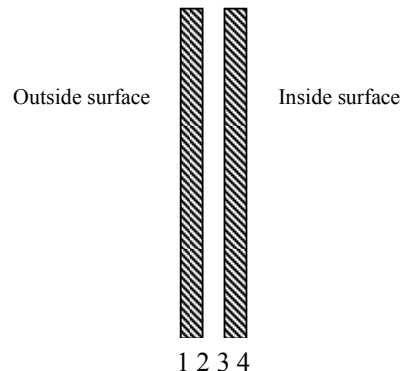


Figure 2: Double pane window assembly

- **When the red FAR LED light is lit, the meter is detecting the Low-E coating on the far surface of the window assembly.** In a double pane window assembly, the far side refers to the pane of glass that the meter is not contacting. For example, when the meter is placed on the inside pane, #4, the meter detects a Low-E coating on surface #1 or #2 when the FAR LED light is lit.
- **When the green CLEAR LED light is lit, the meter detects no conductive coating on any of the four surfaces.**
- **When all LED lights are lit, the meter is in CONTACT with the conductive coating.**



Figure 3: Meter shows LowE coating on the near side of glass.

3. **Repeat procedure on the other side of the glass, if accessible, to verify the reading and to locate the LOW-E coating.**

Measurement Procedure for Single Pane and Other Types of Window Assemblies

The Low-E detector is optimized for measuring a double pane window assembly with a ¼” to ½” air space and 3/32” or 1/8” glass thickness. For both double pane and single pane glazing assemblies outside the range of the optimal air space and/or glass thickness, the meter can be used in ‘single pane mode’. When used on assemblies outside its optimal air space and thickness ranges the meter switches automatically to “Single Pane Mode.” In this mode the detector will only test the first piece of glass, the piece of glass it is contacting, in the glazing assembly.

1. **Place the smooth backside of the meter (the surface opposite the activate button) on one side of the glass and push the activate button.**
 - **Disregard the red FAR LED indicator and the green CLEAR indicator.** They are not valid when the meter is in ‘single pane mode’.
 - **Test the pane of glass looking for a yellow NEAR indicator.**
 - **If the meter is in direct contact with the Low-E conductive coating, all LED lights will be on.** The CONTACTING coating indication is valid for all applications, regardless of thickness and air space.
2. **Repeat on other side the other pane of glass for double-pane assemblies.** In “Single Pane Mode” the meter will only test the first piece of glass in a window assembly. To use the meter properly for double pane glazing assemblies, both pieces of glass will need to be tested. Again, look for either the yellow NEAR indicator, or the all lights on, CONTACTING coating indicator.