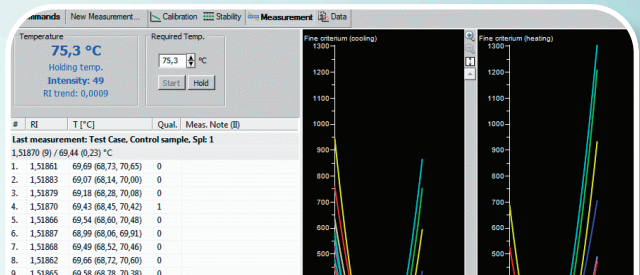


## The Intelligent Way to Measure Glass Refractive Index

Worldwide, forensic labs measure the refractive index of microscopic fragments of glass recovered from crime scenes. This is done by comparing the refractive index of the recovered glass fragment at a fixed wavelength and temperature with those of known sources. The process, as defined by the test method ASTM E1967, monitors a glass fragment in a calibrated oil as the temperature is changed. The tool consists of a high-resolution digital camera, a thermal stage with controlling electronics and advanced software. The system used thermo-optical methodology for high precision measurements to accurately calculate the refractive index of microscopic glass samples. **rIQ 2.0™** implements several unique time saving features to rapidly and correctly measure the glass refractive index. Place any number of probes and this sophisticated instrument will measure multiple glass fragments simultaneously. The unique video recording features allows for easy probe placement, measurement and replacement on new edges or other glass shards.

rIQ 2.0™ is a valuable standalone tool but it can also be added to existing CRAIC Technologies microspectrometers so that it can be used in conjunction with other trace evidence tools and techniques.



### rIQ 2.0™ Key Features:

- The rIQ™ system uses powerful algorithms to measure the refractive index with the highest precision.
- Experiments are stored to video and can be reanalyzed without having to rerun the entire experiment!

### SPECIFICATIONS

|                           |   |
|---------------------------|---|
| Method                    | ASTM E1967  |
| Temperature Range         | RT to 120 °C  |
| Temperature Precision     | 0.1 °C  |
| Oils (RI at 546 nm)       | ~1.51, 1.53, 1.55   |
| Glass Standards           | 24 standards with RI from 1.46 to 1.54 over 20-120°C and 488-656 nm |
| Analysis Wavelengths (nm) | 488, 589, 656   |
| Probes                    | 24 Probes, Resizable  |
| Five Hour Stability       | <2x10 <sup>-5</sup> RI  |
| Five Day Stability        | <3x10 <sup>-5</sup> RI  |
| Analysis                  | Standard Statistical Analysis included                              |
| Operating System          | Windows   |