

Standard Approach to the Examination of Glass

- I. Analytical Procedure: Glass Analysis
- II. Suggested Uses: A procedure for examination of glass evidence.
- III. Procedures
 - A. Prevent contamination or destruction of the items of evidence (see attached sheet).
 - B. Search the item(s) of evidence (see attached sheet).
 - C. Using a polarizing microscope or stereo microscope, determine that isotropic glass particles are present in the debris from the search procedure.
 - D. If sample size permits, determine the physical characteristics of the glass,
 - Color
 - Type (tempered, laminate, etc)
 - Thickness
 - UV characteristics (float glass)
 - D. If possible, examine and compare the question glass sample to the known sample for a physical match (see physical match procedure).
 - E. Measure the refractive index of the glass sample by GRIM-2 for Nd.(see instrumental procedure for Grim-2)
 - F. If sample size permits measure the elemental composition of the glass samples (refer to XRF instrumental procedures).
 - G. Compare the results from questions and known samples to determine the significance of the data.
- IV. Safety Concerns
 - A. Glass slides have sharp edges and can cut.
 - B. High Temperatures may be produced.
- V. Other information - consult reference materials.

Reviewed and Approved: _____
Date: _____