



## *Manufacturer's Information*

# **Test No. 15-548: Glass Analysis**

---

Each sample set consisted of three samples of glass fragments, two Known (Items 1 and 2) and one Questioned (Item 3). Items 2 and 3 were from the same picture frame glass, while Item 1 was from different picture frame glass. Examiners were instructed to examine the questioned glass particles and determine if any could have originated from the same source as the known recovered glass fragments (Items 1 and 2).

### SAMPLE PREPARATION-

The glass from the two picture frames was wiped down, checked for defects, and the edges taped off to prevent the use of those areas. Differing items were processed and packaged separately from each other to prevent cross-contamination.

ITEM 1 (ELIMINATION): For the Known Item 1 samples, two glass fragments approximately 1/8" x 1/8" in size were selected and packaged in a glassine bag and then a pre-labeled Item 1 coin envelope. Item 1 was further packaged into the sample set as described below.

ITEMS 2 and 3 (IDENTIFICATION): For the Known Item 2 samples, two glass fragments approximately 1/8" x 1/8" in size were selected and packaged in a glassine bag and then a pre-labeled Item 2 coin envelope. For the questioned Item 3 samples, two glass particles approximately 1/16" x 1/16" in size were selected and packaged in a glassine bag and then a pre-labeled Item 3 coin envelope. Items 2 and 3 were taken in close spatial proximity to one another and were kept together as an identification group and packaged into the sample set as described below.

SAMPLE SET ASSEMBLY: For each sample set, an Item 2 and Item 3 from the same identification group were placed in a pre-labeled envelope along with an Item 1. The sample pack was sealed with invisible tape. Once verification was completed, all sample packs were further sealed with a piece of evidence tape and initialed "CTS".

The average refractive indices for the glass as reported by preliminary testing and predistribution laboratories are as follows: Item 1 RI = 1.51884, Item 2 RI = 1.51593, and Item 3 RI = 1.51591.

VERIFICATION: All three predistribution laboratories reported the expected association and elimination. The methods employed by the predistribution laboratories included Refractive Index (nD), UV fluorescence (long, short), thickness, color, physical match, glass type, and elemental analysis (solution ICP-MS).

\*\*Revised: Item 1 average refractive index