Forensic–Prep

SAMPLE PREPARATION FOR FORENSIC RESEARCH LABS

WWW.SPEXSAMPLEPREP.COM/FORENSICS

SPEX SamplePrep is an industry leader in sample preparation products for forensic research and testing labs. Our powerful homogenizers and cryogenic mills provide reliable, reproducible results without cross contamination.

Applications include:

:: Human identification :: Drugs of abuse :: Toxicology :: Explosive residue testing

FREEZER/MILL®
CRYOGENIC GRINDER

6875 FREEZER/MILL®
Single chamber: 0.1-100 grams

6775 FREEZER/MILL®
Single chamber: 0.1-5 grams

Scan the QR code to see the Freezer/Mill in action

FEATURES

The **Freezer/Mill®** grinds tough or temperature sensitive samples at cryogenic temperatures. This mill is able to process the toughest samples quickly and effectively that are ungrindable at room temperature.

Product synergy: DNA separation (centrifuges), amplification (PCR) and sequencing (NGS) equipment. GCMS for drug analysis and ICP for toxicology testing.

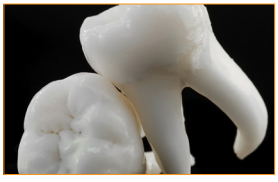
Customer types: Police labs, contract testing labs and archaeology labs

Typical samples: Bone, teeth, hair, skeletal material, fabrics

Typical sample size/format: 0.1-100g

Applications include: DNA/RNA extraction from bone and teeth for victim identification. Extraction of drugs of abuse or toxic elements from hair. Extraction of body fluids or explosive residues from fabrics.

Human teeth processed in the Freezer/Mill®



Tooth sample before

Tooth sample after

SPEX® SamplePrep

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FORENSIC–PREP

Get higher throughput with the 6875D Freezer/Mill®

FEATURES

1. Dual grinding chambers processes up to 200 grams* of sample.
2. Dual pre-cooling chambers keeps up to 200 grams* of sample at cryogenic temperatures while other samples are grinding.
3. Comes with auto-fill attachment for liquid nitrogen but also has the ability for manual fill.
4. Control panel with touch screen interface stores up to 10 grinding protocols.
5. Safety features include LN sensor and lid interlock. Grinding process stops if the lid is opened while the mill is running.

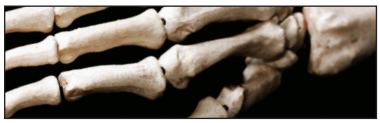
**100 grams per chamber using large grinding vials*

Grinding bone in the Freezer/Mill®

To grind bone in the standard 6751 vial, we recommend cutting it before grinding into pieces approximately 5 mm in diameter, or smaller. The quantity to be ground in a 6751 Vial can vary from less than half a gram up to four or five grams, depending on the toughness of the sample and the size of the pieces. For bone in the 6751 vial we recommend at least 10 minutes of Pre-Cool time. Depending on the quantity and size of the bone pieces, grinding can take anywhere from 1 minute to 10 minutes. Grinding times longer than 2 minutes should be split into 2- minute grinding periods separated by 2 minutes of cooling. Speed up grinding by increasing the grinding rate.

The large 6801 vial can grind up to 40 or 50 grams of bone, and the size of the pieces is not important unless they are large enough to prevent the impactor from moving. However, the 6801 vial usually takes longer to grind a sample than the 6751 vial, and for a large sample we recommend 15 minutes of pre-cooling.

BEFORE AND AFTER SAMPLES



HUMAN BONE - BEFORE

HUMAN BONE - AFTER

HUMAN HAIR - BEFORE

HUMAN HAIR - AFTER

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