UL's GREENGUARD Certification Program SAMPLE PACKAGING INSTRUCTIONS



The following guidelines have been established for the collection, handling and documentation of product samples to ensure that the samples are reliable, representative, uncontaminated, and well-preserved. Improper sample collection may impact the integrity of the sample and invalidate data and data analysis.

- 1. Use of powder-free latex gloves is strongly recommended during collection and packaging of the sample. Latex gloves minimize the risk of sample contamination.
- Each sample should be packaged once it has reached room temperature after it has been collected from the manufacturing line, or immediately after the manufacturer's product packaging process has been completed.
- 3. Product preparation and sample size is detailed on the reverse side of this document and must be followed.
- 4. Product samples may be packaged in two ways:
 - a. In the provided Mylar bag. When sealing the bag, be sure to express as much excess air from the bag as possible; or
 - In the manufacturer's standard product packaging materials, including sealed containers b.
- 5. Complete the following sections of the chain of custody form:
 - Product and Company Information

Sample Submitted to

Collection Information

Post-testing Sample Disposition

- Shipping Information
- 6. Place the completed Chain of Custody form into the enclosed clear sleeve. Attach the sleeve to the outside of the Mylar bag containing the sample or the standard product package. Retain a copy of the Chain of Custody for your records.
- 7. Samples should be shipped from the manufacturing facility within 24 hours of collection and packaging. Samples must arrive at the testing laboratory within 7 days of shipment; however, overnight shipment is strongly recommended for small products.

Chain of Custody Compliance Requirements

Dry Products:

•

Date Manufactured: Date the product comes off the final manufacturing line Date Collected: Within 24-hours of production

Date Shipped: Within 24 hours of sample collection

Wet Products:

Date Manufactured: Date the product comes off the final manufacturing line Date Collected: Within 3 months after production Date Shipped: Within 4 months after production

Furniture Products:

Date Manufactured: Date the product comes off the final manufacturing line Received by Laboratory: within 15 days from first product manufacture and receipt of the last product by the laboratory.

All samples must arrive at the laboratory within 7 days of shipment date.

The testing laboratory has the right to reject a product sample for testing if the chain of custody form is missing or incomplete. Samples arriving with insufficient time to initiate testing within the required timeframe may also be rejected.



Instructions have been adapted from the UL2821 GREENGUARD Standard Method for Measuring and Evaluating Chemical Emissions from Building Materials, Finishes and Furnishings Using Dynamic Environmental Chambers.

To view the full standard and other GREENGUARD Standards, please visit http://www.comm-2000.com/default.aspx .

Specific Product Sample Collection Procedures

Tile and Plank Products - If standard manufacturer packaging materials are not used a minimum of four representative tiles, strips or planks, each with a minimum surface area of at least 64 square inches, shall be collected. The tiles, strips or planks shall be stacked tightly together face to back and immediately placed in specialized packaging.

Sheet and Roll Goods - Goods shall be cut at a minimum width of 12" across the entire width of the roll. Following cutting, the product shall be tightly rolled and immediately placed in specialized packaging. Wallcovering and other fabric may be collected as a full or partial production roll. In these cases, the roll shall have at least 10 layers of material and may be provided collected from the packaging line or placed in specialized packaging.

Rigid Panel Products - For large panel products, the entire panel may be shipped as long as the sample is appropriately sealed. As an alternative, smaller samples may be collected from the larger panel. These samples shall be collected at least 6 inches away from all edges of the larger panel, the smaller panel samples shall be cut into approximate 12" x 12" squares. A minimum of four squares is required. The squares shall be stacked tightly together face to back and immediately placed in specialized packaging.

Insulation - In order to best represent the finished product, air that may be exchanged in, and evacuated from, the packaging process should be simulated as much as possible. The cooling of the product is also a factor when the collection point is established.

- Batts and Rolls: Most, if not all of these materials are packaged in bags as an integral point of manufacturing. Further, air is generally evacuated from the package to reduce the physical size of the packaged product for shipping purposes. Samples shall be collected 15 minutes (± 2 minutes) following packaging. The product should be removed from its original packaging and placed into the specialized packaging. Manufacturers who wish to continue to collect samples directly from the production line may continue to forego packaging and may establish an earlier point of sample collection as long as the sample is cool. Samples shall be submitted per the following size requirements: 18" x 30", samples of the same material may be cut into smaller sizes (no smaller than 12" x 12") and placed in the same packaging.
- Boards and Rigid Foam Products: As board products are generally boxed, opening the final package would be both difficult and cause excessive waste. In this case, the sample should be removed immediately from the production line and allowed to condition for 15 minutes (± 2 minutes) under standard conditions in the plant prior to packaging for emissions testing. Manufacturers who provide GREENGUARD Certified products for furniture panel applications will be expected to deliver product for the purposes of emissions testing in the same fashion as standard board products. Manufacturers who wish to continue to collect samples directly from the production line may continue to forego packaging and may establish an earlier point of sample collection. Samples shall be submitted per the following size requirements: 18" x 30", samples of the same material may be cut into smaller sizes (no smaller than 12" x 12") and placed in the same Mylar packaging bag.
- Blowing Wools and Loose Fill Products: It has been determined that the collection of loose fills or blowing wools is not easily
 achieved directly from the production line, dependent on the manufacturer. The sample collection procedure shall be consistent
 with Batts and Rolls. Sample collection, in this case, requires collection of product from the compressed or evacuated product
 package, 15 minutes (± 2 minutes) following packaging. Manufacturers who wish to continue to collect samples directly from the
 production line may continue to forego packaging and may establish an earlier point of sample collection. Samples shall be
 submitted per the following size requirements: Loose fill insulation shall be placed in a specialized packaging bag, filling roughly
 66% to 75% of the bag.
- **Spray Foam Insulation:** As these products do not come off a manufacturing line, the following collection processes have been instituted to most closely mimic those associated with spray foam installation.
 - Closed Cell Foam Insulation: Spray a 12" x 12" sample to thickness (based on stud size) 1 or 2 passes 1.5"- 2" thick. Wait 1 hour (or shortest time allowed before able to be cut). Place in Mylar bag
 - **Open Cell Foam Insulation**: Spray a 12" x 12" sample to thickness 3.5"- 4" for walls, 6" for attics. Scarf the sample (usually done within 15 minutes of spraying to remove excess foam). Wait 24 hours. Place in Mylar bag.

Containerized and Wet Products - Products shall be supplied in original, standard 1-pint or 1-quart consumer containers for paints. Adhesives shall be supplied in their consumer packaging, such as an applicator tube or can (if less than 1 gallon). Alternatively, adhesive and paint samples can be collected in clean, unused paint cans (1-pint or 1-quart size). Special care is required to assure that these samples are representative of the larger batches from which they are collected. Containers shall be filled so there is minimal unfilled headspace above or below the adhesive. Samples of containerized products sent to a laboratory shall also be accompanied by a Safety Data Sheet (SDS) and a Technical Datasheet that describe the products, list the major chemical ingredients, identify the intended uses and describe the application methods. Disposal recommendations should also be provided.

Furniture and Other Large Products - Furniture and other large products shall be collected immediately following manufacturing and packaging due to product size, the manufacturer's standard packaging materials and processes are often use for large products such as chairs, tables, and desks. This is typically shrink wrapped followed by placement in a cardboard box. For multi-component systems, a consolidation area must be established that is clean with controlled environmental conditions. As additional components are packaged, they shall be stored in the consolidation area until all components have been manufactured and packaged. Annual test requests for workstations and casegoods shall be submitted in accordance with ANSI/BIFMA M7.1 Test Method.