

Double Layer Glass Mug Use and Care Manual

1. Overview

These double layer glass mugs are crafted from 100% lead-free borosilicate glass, which is selected for its excellent durability and safety in contact with liquids. The double-wall structure forms an insulating air gap, enabling beverages to stay hotter or cooler for longer than standard single-wall mugs while keeping the outer surface cool to the touch for safe handling. With a 12.5-ounce capacity (up to the rim), the mugs are ideal for espresso, tea, or small lattes and are compatible with most home brewing setups. The clear exterior displays the contents clearly, creating a floating visual effect through the separation of inner and outer walls, enhancing the presentation of latte art and café-style drinks. Additionally, the design minimizes external condensation and protects countertops from heat, ensuring convenient daily use. A special small feature at the bottom helps manage temperature changes: it allows the glass to "breathe" while remaining sealed to prevent water ingress, ensuring safety during transfer and repeated use. This manual provides detailed guidance on proper use and care to maintain the glass's clarity and strength over time.

2. Proper Usage

2.1 Beverage Application

The mugs are suitable for both hot and cold beverages, including espresso, tea, small lattes, iced drinks, and more. The 12.5-ounce capacity meets daily drinking needs for small to medium servings. The insulating air gap between the double walls effectively retains the temperature of the beverage, keeping hot drinks warm and cold drinks cool for an extended period.

2.2 Usage Scenarios

Designed for daily use, the mugs are perfect for home settings such as kitchens, dining tables, or home bars. They are also suitable for casual gatherings with friends or family, where the clear, elegant design can enhance the beverage presentation experience.

2.3 Usage Precautions

1. Avoid using the mugs for purposes other than holding beverages (e.g., storing sharp objects, corrosive substances, or high-temperature solids), as this may damage the borosilicate glass or compromise safety.
2. Do not subject the mugs to sudden extreme temperature changes (e.g., pouring boiling water into a cold mug, placing a hot mug directly into cold water, or putting a cold mug into a preheated microwave). Although borosilicate glass has good thermal stability, sudden temperature shocks may cause cracking. When heating cold mugs in the microwave, it is recommended to pre-warm them slightly with warm water first.
3. When handling hot beverages, even though the outer wall remains cool, avoid touching the rim of the mug directly (as the rim is a single-layer area that may be hot) to prevent burns.
4. Do not overfill the mug (exceeding the 12.5-ounce rim capacity), especially when heating in

the microwave or carrying, to avoid spills and scalds.

5. Protect the bottom feature: do not pick, pry, or scratch the small bottom structure, as this may damage the seal and cause water ingress.

3. Cleaning Instructions

3.1 Routine Cleaning

The mugs are easy to clean and can be washed manually or in a dishwasher. For manual cleaning: rinse the mug with warm water immediately after use to remove residual beverages, then wash with mild dish soap and a soft sponge or cloth. Rinse thoroughly with clean water and dry with a soft towel to maintain the glass's clarity.

3.2 Stubborn Stain Removal

If stubborn stains (e.g., tea stains, coffee residues) occur, soak the mug in warm water mixed with a small amount of mild detergent or baking soda for 15-20 minutes, then gently scrub with a soft brush. Do not use abrasive cleaners (e.g., scouring powder, steel wool), hard-bristled brushes, or sharp tools (e.g., metal scrapers), as these will scratch the glass surface and affect its transparency.

3.3 Dishwasher Cleaning Guidelines

When using a dishwasher: 1. Place the mugs on the top rack to avoid collision with heavy items (e.g., pots, pans) on the bottom rack during the wash cycle.

2. Avoid overcrowding the dishwasher to ensure sufficient water flow for thorough cleaning and prevent the mugs from hitting each other.

3. Use a gentle or glass-specific wash cycle with mild dishwasher detergent. Do not use high-temperature drying mode, as excessive heat may damage the mug. It is recommended to air-dry or dry with a soft towel after washing.

4. Microwave Heating Guidelines

The mugs are safe for microwave use, but please follow these guidelines: 1. Only heat beverages in the mug; do not heat empty mugs or mugs containing dry solids.

2. Remove any metal accessories (if applicable, e.g., metal lids) before placing in the microwave.

3. Heat in short intervals (e.g., 30-second increments) to avoid overheating the beverage and damaging the glass. Stir the beverage periodically during heating to ensure even temperature distribution.

4. After heating, use oven mitts or a towel to handle the mug if the rim becomes warm, and avoid touching the heating element of the microwave directly with the mug.

5. Maintenance Tips

5.1 Surface Protection

Avoid contact with hard objects (e.g., metal utensils, stone countertops) to prevent scratches. Do not use the mugs to hold strongly colored or acidic beverages for long periods (e.g., fruit juices, carbonated drinks with high acidity), as this may cause discoloration or damage to the glass surface over time.

5.2 Storage Guidelines

When storing, place a soft liner (e.g., paper towel, cotton cloth) between each mug to avoid friction and scratching. Store in a dry, cool area away from direct sunlight and extreme temperature environments (e.g., near heaters, air conditioners), as prolonged exposure to such conditions may affect the glass's durability.

5.3 Bottom Feature Maintenance

Regularly check the small bottom feature to ensure it remains sealed and free of debris. If any dirt accumulates, gently clean it with a soft brush and warm water; do not use sharp tools to avoid damaging the seal.

6. Safety Information

1. The mugs are made of 100% lead-free borosilicate glass, ensuring safety for food contact. Discontinue use immediately if the mug is chipped, cracked, or the bottom seal is damaged, as this may cause leakage or breakage during use, leading to injury.
2. Keep the mugs out of reach of young children unless supervised by adults. Glass products may break if dropped, resulting in sharp fragments that can cause cuts.
3. This product is for household use only; do not use it in commercial catering settings without prior verification of suitability.
4. If the mug breaks accidentally, dispose of all fragments properly. Do not attempt to repair broken glass by yourself, as this may create unsafe ed