

CLEANING

CLEANING SUPPLIES NEEDED

- 2 Micro-fiber cloths – one for wet cleaning, one for drying. If micro-fiber cloths need to be laundered, do not use fabric softener
- Isopropyl alcohol
- Distilled water
- Gloves (optional)

WET METHOD CLEANING

- Mix water and isopropyl alcohol 1:1
- Spray on micro-fiber cloth
- Use cloth to clean glazing
- Optional: dry off with second cloth

DRY METHOD CLEANING

- Spot-clean any finger prints with the dry micro-fiber cloth by wiping in a soft, circular motion

ALTERNATIVE METHOD OF CLEANING

- UltraVue® Laminated Glass is easy to clean with commercially available, ammonia-free glass cleaner

OPTIONAL

- Mix a couple drops of detergent with distilled water
- Use on micro-fiber cloth to clean surface of glazing
- Rinse with distilled water to ensure removal of any detergent residue and dry off with second cloth

CUTTING SUPPLIES NEEDED

- Straight edge
- Manual glass cutter
- Propane torch or hot air blower
- Safety glasses and gloves

CUTTING

- Score first side with straight edge or T-square
- Apply light, even pressure to snap/break
- Turn the laminated glass over
- Score directly over first side score with straight edge or T-square
- Apply light, even pressure to snap/break
- Heat score with small propane torch (OSHA recommends a hot air blower) along score until PVB interlayer softens
- Cut PVB interlayer with a thin utility blade
- Separate
- Keep the glass cutter clean of glass chips by brushing away fragments frequently with a horse hair brush

CUTTING

STORAGE

STORAGE

- Avoid storing in areas where condensation might occur
- Use 2-ply rag board or pH neutral paper for interleaf during storage. Proper interleaving during storage enables reuse

SHIPPING

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- Works glazed with laminated glass need no film/glass skin when shipping
- Allow 24 hours for climatizing before exhibiting condensation will leave water spots on the coatings

FOR MORE INFORMATION VISIT TRU-VUE.COM/MUSEUMS-COLLECTIONS

FACTS & SPECIFICATIONS

ANTI-REFLECTIVE • CRYSTAL CLEAR • 99% UV PROTECTION • SAFETY & SECURITY

UltraVue®
Laminated Glass
A TRU VUE PRODUCT

SIZE AVAILABILITY

| SIZE | THICKNESS | | APPROX WT/LITE | | AREA/LITE | | CRATE QTY | APPROX WT/CRATE | | APPROX AREA/CRATE | |
|--------------------------------|-----------|------|----------------|-----|-----------|------|-----------|-----------------|-----|-------------------|------|
| | mm | in | lbs | kgs | sq ft | sq m | | lbs | kgs | sq ft | sq m |
| 63" x 85" (2159 x 1600 mm) | 4.4 | 0.18 | 100 | 45 | 37.2 | 3.46 | 20 | 2000 | 907 | 744 | 69 |
| 72" x 120" (3048 x 1829 mm) | 6.4 | 0.25 | 244 | 111 | 60 | 5.57 | 5 | 1450 | 658 | 300 | 28 |

PRODUCT INFORMATION

| | | |
|--|--|---|
| PHYSICAL TRAITS | Substrate | Water white, low iron glass |
| | Thickness Tolerances | +/- 0.3 mm (0.012") |
| | Border Area | Each sheet contains a 15mm (0.6") perimeter border (Border Area) that is subject to inherent processing conditions which may cause the optical and cosmetic performance to be non-conforming in that area |
| | Interlayer | PVB |
| PERFORMANCE DATA | UV Protection 300-380 nm ISO 18902, ASTM E169-04 | (300 - 380 nm): ≥ 99% |
| | Light Transmission MIL-C-14806A, MIL-C-675C | ≥ 98% |
| | Light Reflection/Double sided MIL-C-14806A, MIL-C-675C | ≤ 1.0% |
| PROPERTIES & SPECIFICATIONS | Tensile Strength (ASTM D-412) | 3220 psi |
| | Humidity Resistance MIL-C-48497A para 4.5.3.2 | No deterioration of coating after 48 hours @ 50 °C, 95% RH |
| | Corrosion Resistance (Salt Fog) ASTM B117-03 | 48 hr. No deterioration 50 °C, 95% RH, after exposure for 7 - 24 hr cycles (168 hours), the coating shows no damage - Passed |
| | RoHS Compliance 2011/65/EU | Dangerous substance testing: presence of Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Hex-Cr) - Passed |
| | Photographic Activity Test (PAT) ISO 18916 & ISO 18902 | ISO 18916 Silver Image Interaction • Gelatin Staining • Mottling of Image • Interaction Detector Overall Performance - Passed; ISO 18902 Overall Performance - Meet; Photo-safe per ISO 18902 section 3.9 |
| | Coating Adhesion (Snap Tape) ASTM D3359-08 | The coating shows no damage after snap removal of tape |
| | Solubility MIL-C-48497A | After a 24-hour immersion of exposure at room temperature °F / 16-32 °C the anti-reflection coating shows no deterioration in the following solutions: • Distilled Water • Saline Solution (170 gm of NaCl per 3.8 liters of water) • Acetone • Ethyl Alcohol • Isopropyl Alcohol • Coffee • Coke |
| | Outgassing Oddy Test | Passed |
| | Accelerated Aging (Q Sun Xenon Arc Test) ASTM G155-05, ISO 105-B02 | Anti-reflective, UV protection, and light transmission remain unchanged after 2000 hours (estimated to be approximately 100 years) of Q-sun Xenon arc testing at exposure intensity of 100,000 Lux |
| | IMPACT TESTING - Swinging Punch Bag Test (ANSI Z97.1-2009 & CPSC 16 CFR 1201) | Both 4.4mm and 6.4mm meets the impact and boil test requirements for ANSI Class B and CPSC Category I rating. (18 inch/457mm impactor drop height) |
| | IMPACT TESTING - Pendulum Tire Drop Test (EN 12600:2002) | 4.4mm meets Classification 2(B)2 (450mm/17.7inches impactor drop height); 6.4mm meets Classification 1(B)1 (1200mm/47.2inches impactor drop height) |
| | Moh's Hardness | 6 |
| Coefficient of Thermal Expansion ASTM D-696 | 8.9 x 10 ⁻⁶ mm/mm / °C (4.9 x 10 ⁻⁶ in/in / °F) | |
| TEMPERATURE & FLAMMABILITY | Flammability Self-Ignition Temp (ASTM D1929) | 750 °F / 399 °C |
| | Max Continuous Service Temp | 170 °F / 77 °C |
| | Min Continuous Service Temp | -20 °F / -29 °C |
| | Softening Point | 720-730 °C (1328 - 1346 °F) |

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