# SASKATCHEWAN CRAFT COUNCIL
# GLASS CRITERIA

## *DEFINITION*

This category should encompass any article primarily made of glass that explores the remarkable properties of glass as it interacts with light, producing reflection and depth. The success of a glasswork depends on the skillful combination of colour, texture, lead line, quality, and finish.

Jurying glass relies on a two-part approach: General Criteria, which all glass forms must meet, and Secondary Criteria, which focus on the specific techniques inherent to the form. Jurors should remember that multiple processes might be used.

## ***GENERAL CRITERIA***

1. All glass surfaces need to be clean, free of residues, sharp edges, flaws and imperfections. Edges should be smooth, without sharp points or protrusions.

2. Finished fused glass should be free of devitrification, fibre, kiln wash, kiln shelf material or any other contamination.

3. No commercial designs may be used, except for traditional lampshades and reproduction designs. No kits or purchased pre-cut glass. Design reproductions should be labelled, giving credit to the original artist or pattern.

4. All surfaces that may come into contact with food or skin must be non-toxic. This includes soldering materials, glass, jewellery findings, and paints.

5. Hanging or display mechanisms must be adequate for the weight and balance of the piece, applied professionally, congruent with the design of the work, and considered an integral part of the overall aesthetic. Ready-made parts or components are permitted only if they are subordinate to the total design and craftsmanship of the article.

6. A piece must demonstrate an understanding of the properties and limitations of the materials, as well as competent methods of construction.

7. Fused glass must have the same coefficient of expansion (COE) and be properly annealed. All heated glass must undergo proper annealing to prevent thermal stress. The glass artist should explain their annealing process and discuss factors affecting the annealing firing segment, such as time, temperature, thickness, number of previous firings, and the COE of the glass. Annealing standards are available, but it is challenging to determine if they are performed correctly. The fused glass artist should provide a sample firing schedule at the jurying and be able to explain annealing, including the factors involved (time, temperature, thickness, and COE (coefficient of expansion).

## ***TECHNIQUE SPECIFIC CRITERIA***

## ***Warm Glass: Glass manipulated primarily using a kiln and includes: Fused Glass, Slumped Glass, Kiln-Casting, Glass Painting, Pâte-de-verre.***

**Fused Glass:**
**A technique of layering glass that is then kiln-fired to effectively "fuse" the surfaces together. Glass may be painted, sandblasted, or contain appropriate inclusions. This may also involve slumping the glass to shape within a mold.**

- Glass materials can be either compatible fusing glass or recycled glass.
- Devitrification (a haze or scum like surface on the glass) in the fusing process is unacceptable.
- Champagne bubbles are permitted, but larger bubbles are not acceptable.
- If the work is functional, then the edges should be smooth to the touch.
- If the glass has been slumped, then the finished work should rest securely without wobbling. The sides should have a consistent edge with no dog-boning (pulling in the centre).

**Kiln-Casting:**
**Kiln-casting involves using a kiln to shape glass, powders, and frit by heating them to a forming temperature.**

- Devitrification in the fusing process in unacceptable.
- Cast Glass should not contain residues of ash, fibre paper, or other contaminates in the glass.

**Glass Painting:**
**Glass paints and enamels are a type of surface decoration that requires kiln firing to set the paint permanently. Some paints can be applied without firing, but may fade in time, and their permanence is not guaranteed.**

- Painted functional items must be food-safe and non-toxic. Paint should not be accidentally or easily removed.
- Glass paints should be kiln-fired as required by the bran, there should be no blistering.

**Pate-de-Verre:**
**(meaning paste of glass) is a process where glass powders and frit, combined with binders, are placed in a mold and kiln-fired to create sculptural pieces.**

- Functional pieces must be food-safe and non-toxic.

## ***<u>Hot Glass:</u> Glass manipulated using open flame and includes: Blown Glass, Lampworking/Flame-working, Neon.***

**Blown Glass:**
***Gathering molten glass from the furnace with a hollow steel pipe, followed by blowing and shaping using tools to form objects, vessels, or sculptures.***

- Blown glass pieces should have a uniform thickness.

**Lampworking/Flame-working:**
**Using a blowtorch to melt and shape glass rods into beads, ampules, pipes, marbles, and sculptural pieces.**

- The surface should be free of scum, bubbling, or boiled glass.
- Appendages must be attached firmly and securely.

**Neon:**
***A neon tube is made of a vacuum-tight glass pipe with electrodes at both ends. Inside, it contains a small amount of rare gas. A high-voltage power source is connected to the electrodes. When the current is activated, the tube emits a steady glow.***

- Neon bent glass will have a consistent diameter and thickness throughout.
- Stretch marks and discoloration on bends indicate thinner glass, which may lead to stress in the final product.
- Tight or kinked bends induce stress and reduce the component's lifespan, resulting in an increased load on the transformer.

## ***Stained Glass*: Glass assembled in a matrix and includes: Leaded Came, Copper Foil, Mosaic**

**Leaded Stained Glass:**
**This technique involves cutting glass based on a design and assembling a where the channel (came) and glass pieces interlock. The came can be made of zinc, brass, copper or lead. Once the panel is securely assembled, the metal joints are soldered. The panel is then puttied to enhance strength and waterproofing. This process also prevents rattling of the glass, and gives a finished look to the entire piece. The final step includes adding appropriate reinforcement.**

- The craftsperson must be capable of original work; however, retro-reproduction traditional lampshades and panels (in which case the submission shall specify) is acceptable.

- Soldered came joints should appear smooth and imperceptible with no jagged edges. The came should be free of scratches, nicks or gouges.

- Leaded panels must be reinforced if larger than 24” in width. If required, reinforcement should be incorporated seamlessly into the panel’s design to remain unobtrusive.

- The putty should fill the void beneath the came and the glass and be applied evenly on both sides of the work with no gaps. There should be no excess putty on the glass, especially in the corners, or on the came surface.

- Ensure the supporting hanging hoops or wire are correctly positioned and firmly attached near soldering joints or along the vertical edges as the weight can cause the frame to stretch.

**Copper Foiled and Soldered Stained Glass:**
**This method was designed to allow for finer detail while maintaining high strength and lighter weight. Sculptural pieces can also be accomplished such as Panels and Lamps using this method. This technique involves cutting the glass according to a pattern and wrapping the ground edges of each piece in adhesive-backed copper foil, evenly covering the edges and trimming the overlaps properly. The pieces are then placed together to form the desired shape of the panel, and all the seams are soldered to create a “bead” that resembles lead. Patina can be applied to turn the silver solder lines to a black or copper finish.**

- The craftsperson must be capable of original work; however, retro-reproduction traditional lampshades and panels (in which case the submission shall specify) is acceptable.

- Panels and lamps should be reinforced when necessary. If a copper-foiled piece is greater than 24” in width, reinforcement with Copper Re-strip or wire should be added between copper-foiled seams.

- Solder seams should be smooth and form a consistent bead that completely covers the copper foil.

- Overlaps of the copper foil should be trimmed to maintain a consistent bead width.

- Patina application should be consistent in colour.

- Finishing details for a copper-foiled piece should be clean of any residues and wax.

- Ensure all supports, hinges, and electrical components are properly designed and CSA-approved.

**Mosaic:**
**Using hand-cut glass pieces, a mosaic is a pattern or image made of small regular or irregular hand-cut glass pieces held in place by plaster/mortar, or by adhesives covering a surface such as wood or glass. The direct or indirect method can be used.**

- Glass elements should be firmly adhered to the surface or embedded at the same height in plaster or mortar.
- Functional work should have no sharp edges of glass.
- Glass surfaces should be clean of any adhesives or grouting material.

## ***Other Misc Techniques:*** *Not covered in the above categories: Sandblasting/Etching, Glass in Jewellery*

**Sandblasting/Etching:**
**Carving designs or textures on glass can be achieved by sand-blasting to remove the surface layer or by creating designs in glass using tools like diamond points or specialized implements.**

- Consistency in technique and control of the medium must be evident throughout.

**Jewellery:or wearable art.**

- Constructed with lead-free solder and non-toxic materials.
- Features the glass, with the settings, findings, and chains being secondary.