

## *Lava Cloth™*

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Firing your glass on Lava Cloth™ is a simple and easy way to add a new dimension to your work without costly and time consuming cold finishing techniques. Lava Cloth™ is an industrial fabric used in high temperature applications. It possesses several qualities of interest to the glass artist. It can withstand the heat of the kiln to over 2000°. It does not contain a binder and will not release anything harmful when fired. And best of all, when used as recommended, glass does not stick to it! When glass is fired on Lava Cloth™, the cloth texture is imparted to the bottom of the piece. This can be used in many ways to add value or function to an array of glass art objects.

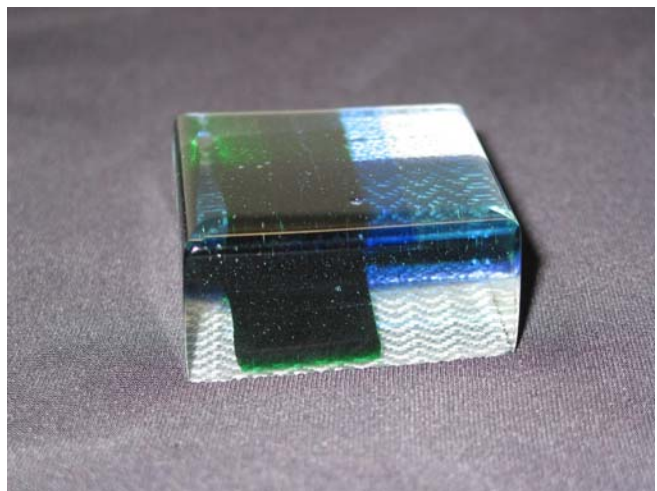
The most obvious quality of Lava Cloth™ is that it adds texture to your work. As you know, glass will pick up the finest details in a mold or on a kiln shelf. Lava Cloth™ imprints every fiber onto the glass, producing a frosted look on transparent glass and a matte finish on opals. That frosted look can be used to diffuse light in sconces, window hangings or anything else that uses light for effect. (See photo 1)

In transparent pieces, Lava Cloth™ can emphasize the depth of your work. A textured, matte background gives a reference to accentuate the position of inclusions, bubbles or different layers of glass within the work. (See photo 2)

The patterns produced by Lava Cloth™ add a lot of visual information to be interpreted by the viewer which has several advantages. The weave pattern in the glass will break up sharp lines. Artists who make mosaics or pattern bars are looking for straight lines and razor-blade precision. Slight misalignments in a precise piece can become an unwanted center of attention. If you are working with color and light, you can take the viewer's attention away from crisp lines and boundaries by adding the fabric texture. You can also use a Lava Cloth™ pattern to tie the piece together. Each element of the work can have its



**Photo 1: Draped Candle Holder** - Two layers fired on Crowsfoot and then draped, rough side up. The Crowsfoot pattern captures the light and accentuates the form of the piece.



**Photo 2: Paperweight** - Eight layers of clear with blue and green transparent strips. Herringbone bottom reflects in the polished sides and shows vividly through the transparent colors.

own unique colors and shapes, but share the texture of the cloth. (See photo 3)

The textures produced by Lava Cloth™ contribute something to the back or bottom of opalescent pieces too. Without any added labor, the back of an opalescent pendant will have a pattern on it showing the viewer that you paid attention to that surface in addition to the more obvious features.

Sometimes reflections on a glossy piece disguise its shape. Reflections can draw attention to, or away from aspects of your work. You can use Lava Cloth™ to define edges or bring out the true form of a piece. (See photo 4)

Finally, adding the intricate texture of Lava Cloth™ can add a gripping surface. Tableware will be easier to handle with wet hands. Tiles will adhere to backsplashes more stably. Findings will adhere to glass more reliably.

Lava Cloth™ comes in three weaves – Harness, Herringbone and Crow’s Foot. Identifying the three weaves takes a little practice at first. Harness is the densest weave resulting in the heaviest cloth. Since it is the densest weave, glass does not melt as far into the fabric so it does not tend to cling to the back of your work as tightly as the other weaves. (more about that later) The harness weave looks different on one side than it does on the other. In other words, it has a side ‘A’ and a side ‘B’. Also because of its dense weave, harness imparts the simplest and smoothest texture to your work. (See photos 5 & 6)

Herringbone is the middle density weave. It is the easiest to recognize because you can see the prominent zig-zag herringbone pattern in it. Herringbone has the same pattern on both sides. (See photo 7)

Crow’s Foot is the least dense weave. Its openness allows glass to melt far into it at a full fuse. If you are looking for rough texture, this is the way to get it. Crow’s Foot has a side ‘A’ and a side ‘B’. (See photos 8 & 9)



**Photo 3: Draped Candle Holder Detail** - Even close up, the Lava Cloth™ texture makes it difficult to identify lines and seems. The conversation between viewers about lines and seems and alignment never even begins. The cloth texture makes it all one piece.



**Photo 4: Two Black Pieces** - These identical 2 ½” x 10” strips were slumped over five triangular shelf posts. One has the glossy side up and the other has the texture side up. At this angle, the form of the glossy piece gets lost while, on the other piece, the texture shows every detail of the shape.



**Photo 5: Harness A**



**Photo 8: Crow's Foot A**



**Photo 6: Harness B**



**Photo 9: Crow's Foot B**



**Photo 7: Herringbone A**



**Photo 10:** A typical weighting arrangement for a piece of Lava Cloth™. Stainless steel weights on top of Hot Damz arranged around the edge of the cloth.

## ***How to Use Lava Cloth***

Lava Cloth™ should be pre-fired to 1400° for about 10 minutes before its first use. Lava Cloth™ is initially black but will turn white and shrink slightly when first fired. Pre-firing takes care of the shrinkage before you put your glass on the cloth. It does not have to heat slowly and it does not have to be alone in the kiln. You can pre-fire a stack of Lava Cloth™ all at once. It is not recommended to pre-fire Lava Cloth™ with other glass work as it will produce enough harmless ash during pre-firing to cause a slight haze on glass. Once it is pre-fired Lava Cloth™ is ready for use.

This is important. You must weigh down Lava Cloth™ when firing glass on it. The glass will melt into the weave of the cloth to produce the texture you are looking for. As the glass melts and flows into the tiny voids in the cloth, it is as if the glass is growing football cleats that will grip the cloth. Upon cooling, the glass will contract much more than the cloth but will still grip the cloth causing it to lift and buckle. As a result, your glass will be slightly warped when you take it out of the kiln. Larger pieces of glass, which will contract more upon cooling, will be more affected than small pieces. To prevent it from lifting up, weight your Lava Cloth™ around the edges so the cloth stays flat. I use scrap stainless steel pieces obtained from a local metal shop. Other good solutions are strips cut from mullite kiln shelves, Bullseye Kiln Brix, Hot Damz or pieces of soap stone. (*See photo 10*)

Here is another important detail. After firing, allow the glass to cool completely before removing it from the Lava Cloth™. The cloth clings more tightly to the glass when the glass is still warm and can tear as you try to remove it. I have seen this happen at 140 degrees. The cloth separates from the glass much more easily when the glass is at room temperature. As with all other areas of glass work, patience is a must.

Depending on the weave and how hot you have fired your glass, the cloth may still cling to your work at room temperature. The Harness weave is the densest and the glass will not penetrate as deeply into the weave. Crow's Foot is the loosest weave and glass fired at full fuse

will do two things. First, the cleats created by the glass sinking into the weave will hang on to your Lava Cloth™. Peel the cloth off carefully using even pressure. Sometimes it feels like you are peeling masking tape. Second, the glass will have the feel of sandpaper because it melted so far into the cloth. You may want this or you can sand the surface down with a diamond pad.

Lava Cloth is not recommended for pot melts for the above reason. The glass is too fluid at the temperatures used and will penetrate far enough into the fabric to envelop it. The Lava Cloth™ will then be inseparable from the glass. The same can happen to small strips of Lava Cloth™ if used at high temperatures. The glass can melt around them and entrap the fibers on the edge of the fabric strip.

A piece of Lava Cloth™ can last as long as 8 or 10 firings. After firing a few times, it becomes soft like any other piece of fabric and can be stored indefinitely. The cloth will become more delicate with each firing. Its life depends largely on the firing temperature for two reasons. First the temperature takes its toll on the cloth. Second, hotter glass will melt deeper into the fabric causing it to fray slightly when you remove the glass.



***Photo 11: Wrinkle Example - Lava Cloth™ has memory. This piece of Lava Cloth™ had a crease in it before it was pre-fired. The crease remained after pre-firing and the 5", two layer circle was then fired on the cloth. Lava Cloth™ should be stored and shipped flat or rolled up to avoid wrinkles.***

One other thing to watch out for is that Lava Cloth™ has memory. The definition of memory in textile-speak means that wrinkles don't come out. If you put several layers of glass on a creased piece of Lava Cloth™, they will hold the cloth flat on the shelf. However, when the glass becomes molten, the creases will rise up and get into the back of your glass. Take care to avoid wrinkles in your Lava Cloth™ by storing it and shipping it either rolled up or laying flat. (See photo 11)

### ***Tips and techniques***

- Try using dry kiln wash to fill the voids in the cloth. Sprinkle the kiln wash on and brush it in evenly with a haike brush or paint brush. That will reduce the amount of texture in your glass. It can prevent the sandpaper-like texture produced when the glass penetrates deep into the cloth and make it easier to separate the cloth and the glass.
- To add texture to the outside of a slumped piece, simply fuse the piece on Lava Cloth™ and then slump it into the mold. Even with the texture side against the mold, the texture will remain. It will be less pronounced and less uniform, but still present. Of course the texture can be used on the top side too.
- Iridized coatings do not allow the glass to sink into the fabric as readily. They act as a barrier resulting in reduced texture and longer cloth life. The visual effect of the texture on the irid coating can be quite striking as well. (See photo 12)

You can use Lava Cloth™ to enhance your work without investing in new equipment or learning new techniques. The texture added to your glass can be used to diffuse light, define boundaries, add depth, provide a gripping surface or produce a finished look. Lava Cloth™ is readily available from almost any fused glass supplier.



**Photo 12: Iridized Plate** - This sandblasted, iridized plate by Tony Smith shows the effect of the Lava Cloth™ texture on the iridized surface.

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