

GelAir Drying Frame Assembly Procedure

Drying Acrylamide gels

Gel Preparation

1. Equilibrate the gel in water for a minimum of 5 minutes to minimize gel cracking during drying.
2. Examine the gel and with a razor blade, carefully remove any areas of the gel which are noticeably thicker. Bio-Rad's Ready Gels and other brands of precast gels have a noticeably thicker edge along the bottom of the gel. The noticeably thicker edges must be removed to prevent gel cracking.

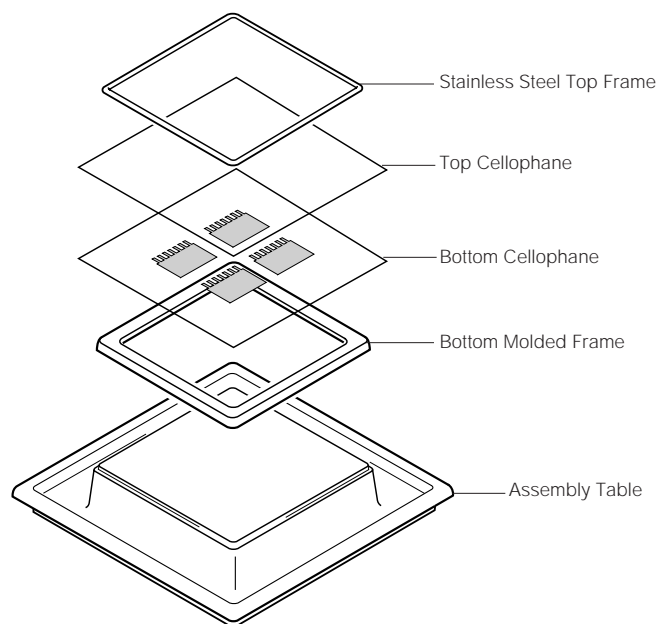


Fig. 1. Drying frame assembly.

Frame Assembly

3. Place the molded bottom frame on the assembly table with the textured side up.
4. Fully submerge a sheet of cellophane in water.
5. Lay the wetted sheet of cellophane on top of the assembly table. It should lay flat and should be centered over the assembly table and plastic frame. Make sure that the edges of the cellophane are hanging over all four sides of the frame. Using your fingers, smooth away any wrinkles and remove air bubbles trapped beneath.
6. Place as many gels on the cellophane as desired. Using a wash bottle, add water to the surface of the cellophane directly around the edges of the gels. Be sure to fill in the wells of the gels with water. Use plenty of water. It provides a means for removing air bubbles when applying the top layer of cellophane.
7. Wet a second sheet of cellophane with water. Carefully lay this sheet on top of the gels. Use both hands to hold one end of the cellophane while draping the other end over one edge of the plastic frame. Slowly lower the cellophane to cover the gels and the rest of the frame. If air bubbles are trapped next to one or more of the gels, raise the cellophane to expose the bubbles and then lower it again. **It is important to remove the air bubbles trapped between the two sheets of cellophane.** If they migrate next to the gel, they can cause gel cracking.

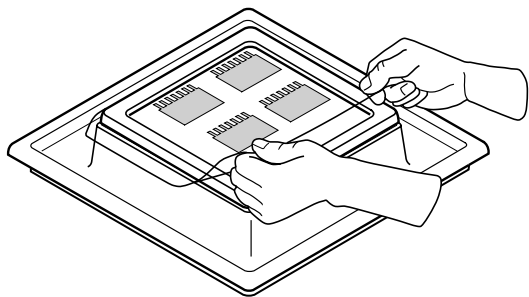


Fig. 2. Adding the top layer of cellophane.

8. When the top cellophane sheet is in place, make sure both sheets of cellophane overhang all four sides of the plastic frame. Re-adjust them if necessary. Use your hand or one edge of the stainless steel frame to smooth away any remaining bubbles. It is not necessary to remove excess water.
9. Place the top frame over the cellophane and center it over the bottom frame.
10. Clamp the top frame to the bottom frame using two clamps per side. Before positioning a clamp, make sure the latch is up. Slide the clamp over the edge of the cellophane and onto the bottom frame until it is seated over the top frame. Push the latch down to lock it in place.

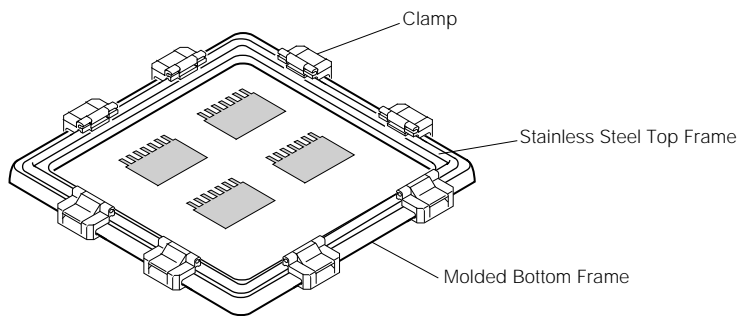


Fig. 3. Assembled GelAir drying frame.

11. Lift the clamped drying frame off the assembly table and slide it onto one of the shelves of the GelAir dryer. Always place wet assemblies below any partially dried gels! Water dripping on a drying gel may cause cracking.
12. Turn on the dryer using the timer knob. Choose either 'continuous on' by turning the knob counter-clockwise or 'timer' by turning clockwise. Select heat or no heat with the heat on/off switch. Gel drying times are primarily dependent upon gel thickness.
13. To test gel dryness, remove the frame from the oven. Feel the entire gel using the back of your fingers or hand (fingertips are less sensitive for this purpose). If any part of the gel feels cold or slightly damp, the gel is not completely dry and needs more time in the dryer. If a gel is removed from its frame before it is entirely dry, it may crack and (or) wrinkle.
14. To remove a dry gel from the drying frame simply lift the clamp latches to release the clamps from the frame.
15. Separate the cellophane from the frames and cut away any unnecessary cellophane from around the gel. You can trim the cellophane right up to the edge of the dried gel. The gel will not peel or separate from the cellophane.
16. The gel is now ready for densitometry gel documentation or any other appropriate application.

Ordering Information

Catalog Number	Description
165-1775	GelAir Drying Frames , includes 2 drying frames and 16 clamps
165-1779	GelAir Cellophane Support , 50 pre-cut sheets
165-1780	GelAir Drying Frame Clamps , 8