

Large Gel Drying Kit

Catalog nos.	Product	
NI2207	Large Gel Drying Kit	Store at room temperature, 15°C to 30°C
NI2200	Large Gel Drying Frame	Store at room temperature, 15°C to 30°C
Pub. Part no. IM-2080	MAN0000742	Rev. Date 2 December 2011

Description

The Large Gel Drying Kit provides a fast and easy way to consistently dry gels without cracking. Gels dry by passive evaporation on your bench top, eliminating the need for expensive heat or vacuum dryers. Gels dried with the Large Gel Drying Kit are suitable for fluorography, photography, densitometry, autoradiography, or permanent gel storage.

Kit Contents

- NI2207 1 Large Gel Drying Frame; 8 Clamps; 100/pack Large Cellophane; 500 mL Gel-Dry™ Drying Solution (1X)
- NI2200 1 Large Gel Drying Frame; 8 Clamps

User Supplied Materials

- Deionized water
- StainEase® Gel Staining Tray (page 4) or a round covered container
- Gel Knife or razor blade

If you ordered NI2200 (Large Gel Drying Frame), you will also need:

- Large Cellophane (page 4)
- Gel-Dry™ Drying Solution, see page 4 (or prepare a solution containing 30% methanol and 5% glycerol)

Product Use For research use only. Not for human or animal therapeutic or diagnostic use.

Gel Drying Protocol

1. Wash destained gel(s) three times for 15 minutes in deionized water (50 mL/mini-gel or 100 mL/standard gel) on a rotary shaker.
2. Decant the water and add fresh Gel-Dry™ Drying Solution (35 mL/ mini gel or 50 mL/standard gel). Shake gently for 15–20 minutes in a round covered container, such as the StainEase® Gel Staining Tray (page 4). When drying gels stained with SimplyBlue™ or Novex® Colloidal Blue Stain, shake the gel in Gel-Dry™ Drying solution for 5 minutes only because prolonged exposure to gel drying solution destains the gel.
3. After equilibration, place 2 pieces of cellophane (per gel) in the Gel-Dry™ Drying Solution. Put in one sheet at a time, making sure to cover both sides of the sheet with solution before adding additional sheets. Allow 15–20 seconds for complete wetting. Do not soak the cellophane for more than 2 minutes.
4. Place the solid square of the drying frame on a paper towel, with the corner pins facing up. Carefully lay one piece of cellophane on the frame without trapping any bubbles beneath the cellophane.
5. Cut any rough edges off the gel (including the wells and the gel “foot”) using the Gel Knife or a razor blade. Be sure to push the blade perpendicularly through the gel; slicing the gel at other than a right angle creates small tears that act as a starting point for crack formation during drying.
6. Lay 1–4 mini-gel(s) or a large format gel on the cellophane sheet making sure no bubbles are trapped between the gel and the cellophane. If necessary, add a little Gel-Dry™ Drying Solution to the surface of the cellophane.
7. Carefully lay the second sheet of cellophane over the gel so that no bubbles are trapped anywhere between the cellophane and gel. Add some Gel-Dry™ Drying Solution, if necessary. Smooth out any wrinkles by rubbing gently over the surface of the cellophane.

Gel Drying Protocol, Continued

8. Place the plastic frame, beveled side up, on top of the cellophane. Push the plastic clamps onto three edges of the frame. Tilt the frame up on the remaining unclamped edge to drain excess solution and then install the final clamp.
9. Set the assembly on a benchtop (gel side up), or in a rack, to dry, away from air vents. Drying will take between 12–48 hours, depending on the humidity and the gel thickness.
10. When the gel is dry, remove the gel from the drying unit and trim off the excess cellophane.
11. Press the dried gel(s) between the pages of a notebook under light pressure for a couple of days. Gels then remain flat for scanning, photography, display, or overhead projection.

Troubleshooting

Observation	Cause	Solution
Gels falling apart in stain or destain	Shaking speed too vigorous or sharp containers used	Decrease shaker speed. Use smooth, plastic container for staining/destaining.
Gels cracking during drying	<ul style="list-style-type: none"> • Air trapped between cellophane layers or strong tension on cellophane • Rough edges or cracks on gel edges • Cellophane slips during drying 	<ul style="list-style-type: none"> • Apply adequate Gel-Dry™ Drying solution to prevent bubbles. Take care not to stretch the cellophane. • Trim rough edges from the gel to eliminate starting points for cracks. • Make sure clamps hold all four edges of the dryer assembly firmly.

Maintenance

To clean the frame and clamps, rinse in deionized water and a mild detergent. To restore clamps to their original shape, dip them in hot water and bend the clamps back into shape.

Product Specifications

Frame Dimensions:	23.9 cm × 23.9 cm
Frame Material:	Acrylic
Gel Capacity:	4 mini gels or large format gels
Cellophane Dimensions:	22.35 cm × 22.85 cm
Chemical resistance:	Parts are impervious to alcohol. Do not use with organic solvents (acetone or toluene)

Accessory Products

Product	Quantity	Catalog no.
DryEase® Mini-Gel Drying System	1 kit	NI2387
DryEase® Mini-Gel Drying Frame	2/pk	NI2380
DryEase® Mini Gel Drying Base	1 each	NI2300
DryEase® Mini Cellophane	200/pack	NC2380
Gel-Dry™ Clamps	8 each	NI2100
Gel-Dry™ Drying Solution (1X)	500 mL	LC4025
	8 × 500 mL	LC4025-4
Large Cellophane	100/pack	NC2200
StainEase® Staining Trays	2/pack	NI2400
SimplyBlue™ SafeStain	1 L	LC6060
Colloidal Blue Staining Kit	1 kit	LC6025

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