

# Haupt Gelatin Adhesive - Technical Memo

**SOLUTION:**

Haupt Gelatin Adhesive

500 ml

Part 1151A

*For storage requirements and expiration date refer to individual bottle label.*

**APPLICATION:**

Newcomer Supply Haupt Gelatin Adhesive is a blended solution of high-quality gelatin, glycerin and phenol with a wide variety of procedural uses including subbed slide/direct slide coating applications. Haupt Gelatin Adhesive works to create a strong adhesive bond between tissue sections and microscopic slides to prevent or reduce the loss of sections due to the nature of the tissue and tissue treatments, such as:

- Thick sections
- Harsh staining procedures
- Animal tissues
- Plant preparations
- Bone specimens
- Resin, plastic/methyl methacrylate (MMA) sections

**METHOD:**

**Technique:** Frozen, paraffin or resin, plastic/MMA sections

**Solutions:** All solutions are manufactured by Newcomer Supply, Inc.

**PROCEDURES:****Haupt Gelatin Adhesive Subbed Slide Preparation:**

1. Use only clean and dry microscopic slides.
2. Place a large drop of Haupt Gelatin Adhesive on slides, spread evenly over surface creating a thin film.
  - a. Allow a minimum of 30 minutes drying time.
  - b. Background staining may occur with thicker films.
  - c. See Procedure Note #1.

**Water Bath Method for Sections on Subbed Slides:**

3. Fill water bath with distilled water; maintain temperature at 5° - 10°C below melting point of embedding medium.
  - a. See Procedure Note #2.
4. Float paraffin tissue sections onto Haupt subbed slides.
5. Warm slide slightly on top edge of water bath to straighten section.
6. Drain and dry slides.

**Vapor Fixation Method for Sections on Subbed Slides:**

7. Mount paraffin or frozen sections on Haupt subbed slides; dry 1 minute.
8. Under fume hood, add 2-4 ml of concentrated formaldehyde to bottom of a Coplin jar.
9. Place slides in Coplin jar; formaldehyde should not be in direct contact with tissue sections.
10. Tightly cover and place in 60°C oven for 30 minutes to 1 hour.
  - a. See Procedure Note #3.
11. Remove slides from Coplin jar; drain and dry.

**Method for Resin, Plastic/MMA Sections on Subbed Slides:**

12. Place droplets of filtered/processed water on Haupt subbed slides.
13. Transfer resin or plastic/MMA sections to water droplets.
14. Air dry or use low heat.

**Method for Resin, Plastic/MMA Sections on Non-Subbed Slides:**

15. Place droplets of Haupt Gelatin Adhesive on clean, dry slides.
16. Transfer resin or plastic/MMA sections directly to Haupt droplets.
17. Add 1-2 drops of 50% ethanol atop sections.
18. Manipulate sections by teasing or stretching to remove any folds.
19. Air dry or use low heat.

**PROCEDURE NOTES:**

1. Dry slides in dust-free environment and store dried subbed slides indefinitely in a slide box at room temperature and low humidity.
2. Clean interior/exterior of water bath on a daily basis to deter contaminants and possibility of residual gelatin adhesive build-up.
3. Formalin vapor renders gelatin insoluble, strongly affixing tissue sections to subbed slides.

**REFERENCES:**

1. Haupt, Arthur W. "A Gelatin Fixative for Paraffin Sections." *Stain Technology* 5.3 (1930): 97-98.
2. Huang, Bing Quan., Michael John. Sumner, Claudio Stasolla, and Edward C. Yeung. *Plant Microtechniques and Protocols*. Springer, 2015. 88, 94.
3. Luna, Lee G. *Histopathologic Methods and Color Atlas of Special Stains and Tissue Artifacts*. Gaithersburg, MD: American Histolabs, 1992. 581.
4. Presnell, Janice, Martin Schreiber, and Gretchen Humason. *Humason's Animal Tissue Techniques*. 5th ed. Baltimore: Johns Hopkins University Press, 1997. 468.
5. Modifications developed by Newcomer Supply Laboratory.