

WHAT IS RABBIT SKIN GLUE, AND HOW IS IT USED IN GESSO FOR GILDING FRAMES TODAY?

Rabbit skin glue is a binder that has been used for centuries to make gesso, a white paint-like substance that serves as the ground layer for gilding a frame. Because of its unique properties, no synthetic substance has been found to replace it in the preparation of gilding frames. Produced from genuine rabbit skin shavings, which are mixed with water and then heated, this glue has high cohesion properties and a distinctive color and odor. The rabbit skin component is processed as either a dry, granular substance or as small cubes and sheets. The protein in the rabbit skin forms a resilient, water-soluble bond that allows gesso to remain flexible, a critical requirement in the gilding process. The gesso surface must be able to flex with the pressure of burnishing, while providing a uniformly smooth surface over which gold leaf can be evenly applied. And because wood expands and contracts with climactic changes, the gesso also must be able to move in harmony with the wood. If gesso is prepared properly, with the right ratio of ingredients, then the frame will have a better chance adapting to variations in temperature and humidity. A top-quality gilded surface needs a good gesso base to produce a brilliant, burnished finish. Although there is no single universal recipe for gesso, experienced gilders, like those at Lowy prepare gesso using a formula based on specific weights of rabbit skin glue and whiting (calcium carbonate or calcium sulfate) added to a volume of water. The gesso recipe used by Lowy also includes linseed oil, a binder used in oil paint that gives gesso added durability over time.



The application of gesso to a reproduction frame.

Throughout history, gilders jealously guarded their own secret gesso recipes from their competitors. The competition for business and for a beautiful gilded finish generated different versions of the gesso recipe, and gilding shops, which were often family-run, were protective of the look they achieved with their frames. Some of these secret gesso recipes also included honey or sugar, which helps gesso to resist cracking, and garlic, which prevents insect infestation. If the exact ratio of ingredients is not used when preparing gesso, then it may become either too hard or too soft, which compromises bonding to the frame's wood surface, leading to flaking, chipping and other damages to the gesso layers. Soft gesso, which contains too much whiting and too little rabbit skin glue, can be easily dented and does not burnish well. Hard gesso, which contains too little whiting and too much rabbit skin glue, can produce an uneven, scratchy burnished

surface. Rabbit skin glue itself must also be prepared with the proper ratio of water and rabbit skin to ensure optimal glue strength. A coat of rabbit skin glue should be applied to the frame before the first gesso layer, in which case it serves as a primer that helps the gesso to bond more easily with the wood. In addition to achieving the proper ratio of ingredients in both the gesso and rabbit skin glue preparations, gilders must also observe a few other rules when preparing gesso. Because rabbit skin glue is an organic substance, the gesso that is made from it must be properly heated and refrigerated. Overheating the gesso mixture not only produces pinholes in the gesso layers but also weakens the rabbit skin glue bond, which is critical to ensure the proper bonding of the first gesso layer to the frame. And if gesso is not properly refrigerated when it is not being used, it will be susceptible to bacteria. Like the great gilders of ages past, Lowy's corps of skilled professionals makes every effort to achieve beautifully gilded frames with the right combination of technical expertise, superb craftsmanship and sound judgment.