

WHAT IS GESSO AND HOW IS IT MADE?

Throughout history, gesso has been used as the traditional ground, or preparation, for gilding frames. This thick, white paint-like substance provides a uniformly smooth surface over wood moldings onto which bole and then gold leaf are applied. The Italian word for chalk, gesso typically is made from calcium carbonate or calcium sulfate, water, rabbit-skin glue and sometimes linseed oil. These ingredients are carefully mixed and then heated at a low temperature in a double boiler. Gesso is brushed by hand over the entire wood surface of a frame. But first, the frame must be coated with a primer of rabbit-skin glue to ensure optimal bonding of the gesso. Eight to ten coats of gesso are typically required to achieve a strong, shell-like coating. After the gesso coating has dried, it is surfaced by hand using either a wet brush or linen cloth, or dry or wet sandpaper. Because the frame's carved details can be lost when gesso is applied, it is often necessary to carve back the gesso layer with small tools either to redefine or augment the ornamentation. This technique is known as recutting or tooling. Perfected by the French, recutting particularly was used on frames dating to the 18th century and earlier, because of their finely carved surfaces. Sometimes early frame makers also added decoration to the gesso, which often took the form of crosshatching or punchwork. Another ornamentation technique that incorporates gesso is pastiglia, which was especially popular during the Italian Renaissance, when frame makers applied liquid gesso in layers to create low-relief decoration. All of these techniques are still being practiced today by conservators and frame makers, both when restoring period frames and creating new frames. Gesso is especially sensitive to changes in climate, and can shrink, flake or crack if exposed to cycles of excessive heat or cold, humidity or dryness. So it would not be advisable to store gilded frames in a damp basement or hot attic, for example. Damages to the gesso layer also can occur when moving a frame, should it be dropped or bumped. In all these cases, it is necessary to seek professional advice from skilled conservators like those at Lowy, who can make the necessary restorations. Artists also have long used gesso as a primer for paintings. But this gesso is not the same as that used for frames; it contains less glue both to facilitate adhesion of the paint and to allow for more flexibility when applied to a canvas support. Though the use of gesso has been said to date as far back as ancient Egypt, it was more commonly used in Medieval and Renaissance panel paintings. Beginning in the 20th Century, artists began to use acrylic gesso, versus the traditional rabbit-skin glue composition that is still used for gilding, because its ingredients allow for even greater flexibility on canvases and other non-wood surfaces, making them less susceptible to cracking for painting restoration.



The application of gesso.