



BEVA® Gesso

Description and Instructions for Use

BEVA® Gesso combines a compressible, chemically inert fine grained mineral powder, a pH buffer, oxidation inhibitors, UV stabilizers, and BEVA resins. BEVA® Gesso has the following characteristics:

- 1) It is a highly elastic material capable of following the expansions and contractions of the substrate as caused by fluctuations in the environment or by vibrations during transport.
- 2) It is stable and expected to maintain its qualities for about 100 years. (A grade A material according to Dr. Feller).
- 3) It adheres firmly to most substrates, such as cardboard, canvas, wood, mosaics, plastics, metals, and paint without danger of interacting with them¹.
- 4) It has a wide range of flexibility, which can be increased further by adding additional quantities of BEVA® 371.
- 5) It can be shaped or textured while wet, or when dry with heat (65-70°C) and pressure. In other words, it can be made to reproduce the optical effects of a surface matching that to the original.
- 6) Untinted BEVA® Gesso dries white, but can be tinted by adding dry pigments, or Maimeri Restoration Colors. It can also be stained with dyes, especially oil and alcohol dyes.
- 7) It is compatible with every retouch (paint) medium and finish, such as watercolor acrylic emulsions, B-72, varnish, varnish-based paints, French polish, and Chinese tung oil.
- 8) It can be made to reproduce the optical effects of the surface being reconstructed, from the roughness of sandpaper and stone to the silky sheen of textiles and the brilliance of high polish.
- 9) It has been buffered to maintain a non-acidic pH.
- 10) It can be used straight from the can and does not require any prior warming or manipulation.
- 11) Once dried on the art work, BEVA® Gesso keeps its dimensions almost unchanged. Since BEVA® Gesso is non-absorbent when dry, retouches can be applied directly on the leveled fillings. Drying time is shorter than required by glue or oil putty.
- 12) Unlike other organic materials, BEVA® Gesso does not decay if kept in a closed jar or can, and it is always ready for use. If it hardens, whether in storage or on an object, BEVA® Gesso can be regenerated with toluene, xylene or a low-aromatic petroleum solvent.

The Filler

The fillers used are crystalline materials of high porosity, and therefore of greatly increased volume and low density. The filler is insoluble in water (it's water absorption is less than 1%). It is also transformed into a clay-like mass by adding plaster of Paris and kneading it by hand.

Reversibility

Like all BEVA® products, BEVA® Gesso is reversible with heat or low aromatic hydrocarbon solvents. This makes it easier and safer to remove than any other filler.



Instructions for Use

- 1) Clean the surface to be filled of any old gesso, dirt and dust thoroughly.
- 2) Apply BEVA® Gesso with a spatula or paint knife. Don't be afraid of covering too much, as the surplus gesso can be removed later without any difficulty.
- 3) After the surface has dried, apply a thin coat of low-aromatic petroleum solvent to soften the surface for easier removal of surplus gesso. The surplus gesso can be removed with a blunt scalpel, or paint knife small enough to follow or match the desired texture of leveling
- 4) When large areas of the painting are missing and the texture needs to be reproduced, a fitting piece of a monofilament screen cloth (Pe-Cap) can be pressed into the surface using heat. Alternatively, a silicone mold of the original texture of an adjacent area can be prepared and pressed in using heat.
- 5) The surface can also be lightly washed with a soft brush to show the grain of the filler.
- 6) After drying, inpainting can be done directly on the gesso, without disturbing or covering its texture.

Laboratory Tests

The application of BEVA® Gesso to canvas paintings is advantageous both from physical and chemical points of view. This has been confirmed by tests performed in the laboratory of Prof. Tellechea and the conditions of the first objects treated with it in 1993. The Wheather-Othemer-Atlas test was used to test the materials under controlled environmental conditions by exposing the samples to Xenon lamp radiation of 5,000 watts in cycles of 60 minutes duration and six hours humidification (Rock Spray). The number of cycles corresponded to more than 15 years and no sign of degradation was found even by X-ray inspection.

Five monumental canvases by Jose maria Bert (8.9x 5.5 meters each) in the Brazilian Embassy in Argentina were heavily damaged during the bombing in the nearby Israeli Embassy. It was important to use a gesso which would enable the conservators to roll up the huge paintings during their attachment to the ceiling without producing strain or detachment. Prof. Tellechea believes that the use of BEVA® Gesso has facilitated the retouching and reduced his work by approximately 70%.

*We are indebted to Professor Domingo Isaac Tellechea of Sao Paulo, Brazil who pioneered the use of the filler mixed with BEVA® 371. We have introduced further improvements before offering it to the American market.

(1) Jane L. Down, Maureen A. MacDonald, Jean Tetreault and R. Scott Williams, "Adhesives testing at the Canadian Conservation Institute – An evaluation of selected poly vinyl acetate and acrylic adhesives". Studies in Conservation, Vol. 41, Num. 1, 1996, pp. 19-44. In extensive testing they found BEVA® 371 to be one of the most stable adhesives and resins available.

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