

## How to Paint a Mural Tips for Painting an Exterior Mural Using Acrylic Paint

Planning how to paint a mural is as important as painting a mural. Proper research and planning will make your mural last as long as possible.

**The mural location:** The main enemies of a mural are sunlight and moisture. North and East facing murals will last longer than West or South facing murals. Murals should not be painted on retaining walls that have earth behind them as moisture can seep through and may lift off the paint or may leave mineral deposits. Avoid locations watered by sprinklers or run off from a roof as this may result in mineral deposits or stains. Acrylic paint is water-resistant but not waterproof and should not be used in standing water. Check your mural site carefully! If you see evidence of previous problems, be sure the causes are corrected or select another site.

**Proper surface preparation:** Proper surface preparation before you begin painting is the most important factor to ensure a long-lasting mural, painting or decorative finish. The surface must be clean and free from any loose or flaking paint, mold or mildew. To prepare a previously painted surface, sand or wire brush as needed. Wash with a solution of trisodium phosphate (available at paint stores), rinse and allow to dry. Remove mold and mildew by scrubbing with bleach. If the surface was previously painted with an oil-based or shiny paint, sand thoroughly before priming. Cement, masonry or wood should be primed with one or two coats of acrylic gesso (such as Nova Color Gesso #200) or with a high quality water-based primer. Laminate board (such as MDO board) that will be installed outdoors should be primed on all sides, including the edges. Do not prime with an oil-based paint or oil-based primer unless the manufacturer specifies that it is suitable for use with water-based paints.

For specific surface preparation visit website [How to Prep and Prime](http://www.paintquality.com/ppp/index.html) (<http://www.paintquality.com/ppp/index.html>)

**The paint must be suitable for exterior use.** The type of acrylic resin used in paint formulation varies depending on the intended use of the paint. Some fine arts, schoolroom, craft or interior paint may use a good quality resin, but this resin may not be suitable for outdoor use. These paints may be too soft, weak or water sensitive for use outdoors. Nova Color Artists' Acrylic Paint is made with a tough, 100% acrylic resin durable for outdoor use.

In addition to the **type of resin** used in the paint, the **amount or percentage of resin** used in the paint formula is important. As a rule, less expensive paints such as low cost house paints or craft paints have only the minimum amount of resin required to make them serviceable. House paints or craft paints are often made with a less expensive and less durable latex or vinyl-latex resin. House paints are designed to last 5-10 years before recoating. With age these paints may become thin, tend to wash off or appear chalky. If you wish to economize by using house paint, use the best quality paint containing 100% acrylic resin.

Adding too much water to the paint can affect adhesion and color permanence, and can shorten the life of your mural. In general, when adding water do not add more than 10% water to Nova Color or 5% to house paint. Use #235 Novaplex to thin paint and keep film strength. If you have thinned the paint to use a paint sprayer, be sure you have applied a sufficiently thick paint film. Sealing with a topcoat will help if there are weak layers beneath.

All materials used in the mural should be researched before they are used. Materials designed for the construction industry or craft use may not be suitable.

Ideally, painting should be done in a temperature range of 65-85 degrees F. Avoid painting in misty or rainy weather. Painting should not be done late in the day when it may become misty or freezing before the paint dries. Do not paint on a frozen wall. Do not paint in hot, direct sunlight or on a heated wall, as paint may dry too fast. If you paint during poor weather conditions you may have adhesion problems in the future!

**To minimize color fading due to sunlight** you must be alert to the **lightfastness rating** of the pigment used in the paint. Some pigments fade more readily than others. The American Society for Testing and Materials (ASTM) standard D5098 rates the lightfastness of pigments. Lightfastness I is the highest rating.

Within the Lightfastness 1 rating some colors are more durable than others. The most durable lightfast colors for exterior conditions are:

#100 Burnt Sienna	#116 Phthalo Green	#141 Mars Violet
#101 Burnt Umber	#117 Raw Umber	#149 Transparent Red Iron Oxide
#104 Chromium Oxide Green	#117D Raw Umber Dark	#174 Neutral Gray 5
#105 Cobalt Blue	#118 Titanium White	#175 Transparent Yellow Iron Oxide
#108 Iron Oxide (Mars) Black	#119 Venetian Red (red oxide)	#176 Indanthrone Blue
#109 Carbon Black	#121 Yellow Ochre	#177 Phthalo Green Yellow Shade
#110 Organic Pyrrole Orange	#128 Raw Sienna	#183 Bone/Ivory Black
#115 Phthalo Blue	#133 Bismuth Yellow	#187 Pyrrole Red
#115D Phthalo Blue Deep	#134 Raw Titanium Matte	

These colors are not quite as highly rated as those listed above but can be good exterior choices:

#129 Quinacridone Red	#139 Super Pearl White	#148 Super Pearl Gold
#137 Silver	#147 Quinacridone Magenta	#178 Arylide Yellow (PY194)

Lightfastness ratings are according to the American Society for Testing and Materials D5098.

I=Excellent II=Very Good III=Does not conform to ASTM D5098.

Ratings are based on the color at full strength. Most colors will be less lightfast when used as a tint (mixed with white, water or other colors) or if used as a glaze (mixed with clear mediums).

**Colors can fade or react to conditions other than sunlight.** Weathering and other environmental conditions such as moisture, acid rain, industrial gases, salt air, and wind can affect color permanence.

Cadmium colors (rated Lightfastness 1), especially cadmium yellows, are sensitive to damp conditions and are not recommended for exterior use. The addition of titanium dioxide (white paint) reduces the durability of cadmium pigments in outdoor environments. Cadmium oranges and reds are more light stable than cadmium yellows, but all cadmium pigments will degrade outdoors if moisture is allowed to penetrate through to the pigment. A clear coat can be used to protect the surface. Be sure that the edges and reverse side are sealed to prevent moisture penetration from those areas. In some situations, cadmium colors have been used successfully outdoors.

New stucco or plaster should be thoroughly cured before painting. Alkaline conditions can cause fading in some colors such as Ultramarine Blue (rated Lightfastness 1).

If you do not see your favorite lightfastness 1 color on this list it does not mean that color is a bad choice for your work. The mural environment and how the artist mixes and applies the paint make a big difference. Nova Color customers have had exterior success with all the lightfastness 1 colors and even some lightfastness 2 colors! We want you to have the best options and the best information.

**A clear topcoat** designed for exterior use such as Nova Color #216 Exterior Varnish or Nova Color #206 Gloss Medium & Varnish will help protect against dampness and add an extra layer of protection against wear and tear. **The topcoat should be applied with the same care as the mural painting.** A sloppy application of a topcoat can cause cloudiness. Apply the topcoat in thin layers, being careful not to overwork the topcoat while it is drying. Do not allow excess topcoat to collect in drips or crevices. Quickly brush out any drips or puddles before they dry to avoid a cloudy appearance. Using a paint roller is **not** recommended.

**The outdoors can be a rough place for artwork.** Nova Color is a tough, durable product, but no outdoor paint lasts forever. The site location, wall preparation, color choice, and application are all very important! Don't skimp on the details.

**About Nova Color Artists' Acrylic Paint:** We have been making Nova Color Artists Acrylic Paint since the 1960's. We use a tough, durable, 100% acrylic resin suitable for use outdoors. No additives are needed to make it suitable for exterior use. Nova Color is sold factory-direct to the muralist and is available in pints, quarts, gallons and 5-gallon pails. Nova Color is shipped throughout the USA and Canada.

Visit <http://www.novacolorpaint.com/> for more information about paint and links to useful websites.