

Gamblin Conservation Colors are stable, reversible and suitable for use with a wide array of painting styles and techniques. Their innovative low molecular weight resin binder also makes Gamblin Conservation Colors safer to use.

Conservation scientists' criteria for a new kind of conservation color included stability, safety of use, quality of manufacture, optical and working properties. Robert Gamblin has formulated artists' materials since 1980. In 1994, he joined the research team after conservation scientists observed that making paints by hand-grinding resulted in a somewhat coarse, glossy paint which lacked the smooth paste consistency of commercially prepared paints. The collaborative goal was to develop a new kind of conservation color from lightfast, permanent materials with enhanced working and aging properties.

Conservation colors made from a low molecular weight resin binder have better optical properties and better handling properties than paints based on polymeric resin. Aldehyde resins are a more appropriate binder than some other low molecular weight resins because they are slightly polar and wet pigments more easily. The accelerated age testing was done at the National Gallery of Art in Washington, DC. Once the binder was accepted, the team agreed that the new paints should be fairly lean and matte. Viscosity and sheen can be easily altered by adding additional binder: Galdehyde Resin.

Gamblin Artists Colors Co. produced four trial batches of paint to establish correct pigment/ratio binder for smooth brushing and easy reducibility with medium. Conservators in North America and England participated in testing. During the initial test phase the new Gamblin paints were used for retouching on over one hundred treatments from Trecento Italian to 20<sup>th</sup> century paintings. Gamblin Conservation Colors have proven useful for all techniques of inpainting including glazing. The paints have good covering power and little change in color when dry.

Technical papers available on our website:  
[www.conservationcolors.com/papers.html](http://www.conservationcolors.com/papers.html)

**Stable Resin** • Drawdowns have been aged 3000 hours in a weatherometer (equal to approximately 62 years of museum light exposure). The samples retained their solubility in mild solvents, showing that the resin is stable upon aging.

**Fully saturated color** • The high refractive index of the resin leads to colors as saturated as aged oil colors.

**Low solvent requirements** • Because the aldehyde resin is soluble in solvents of low polarity, conservators can greatly lower exposure to strong solvents while retouching paintings. Colors will redissolve in mild solvents to help protect the original work.

**All colors light fast** • Only pigments of highest lightfastness are used (including modern substitutes for Alizarin Crimson, Indian Yellow, and Brown Madder).

**Excellent working properties** • Robert Gamblin's more than 30 years experience formulating artists' materials has gone into the manufacture of these colors, so their fine working properties facilitate rather than hinder retouching.

**Convenient size** • All colors available in 15 ml jars.

### Other Products and Raw Materials

On our web site you will find other materials used by the conservator:

- Wax/Resin fill materials
- Custom colors available, made with your special dry pigments, contact us for quote
- Resins
- Highest quality dry pigments
- Gamvar Picture Varnish: Kit containing Regal Rez and mineral spirits for making varnish

### Ordering Information

A list of retail outlets, order forms, and current pricing are available on our web site:

[www.conservationcolors.com](http://www.conservationcolors.com)

Or you may also request the information from us by phone:

Country Code: 01  
Local Phone: (503) 235-1945  
(8:30 am - 5:00 pm Pacific Time)  
Local Fax: (503) 235-1946  
Email: [RGamblin@conservationcolors.com](mailto:RGamblin@conservationcolors.com)

# CONSERVATION COLORS

Developed by  
conservation scientists  
and made by  
Robert Gamblin,  
founder of the premier  
American manufacturer  
of artists' oil painting  
materials.

Technical information, newsletters, list of retail outlets,  
and order forms may be found at:  
[www.conservationcolors.com](http://www.conservationcolors.com)

Sole distributor:

Gamblin Artists Colors Co.  
PO Box 15009  
Portland, OR 97293  
USA

Phone: 01 (503) 235-1945

Email: [RGamblin@conservationcolors.com](mailto:RGamblin@conservationcolors.com)



**YELLOWS**

- CADMIUMYELLOWLIGHT ■ Concentrated cadmium zinc sulfide (PY35)
- CADMIUMYELLOWMEDIUM ■ Concentrated cadmium sulfide (PY37)
- HANSAYELLOWMEDIUM ■ Arylide yellow (PY 74)
- INDIANYELLOWPERMANENT □ Diarylide yellow HR70 (PY83)
- NAPLES YELLOW LIGHT ■ Nickel Antimony Titanium Yellow (PY53),
- NAPLES YELLOW DEEP ■ Chrome Antimony Titanium Buff (PBr24)

**ORANGES**

- CADMIUM ORANGE ■ Concentrated cadmium sulfo-selenide (PO20)
- MARS ORANGE ■ Synthetic red iron oxide (PR101)

**REDS**

- CADMIUM RED LIGHT ■ Concentrated cadmium sulfo-selenide (PR108)
- CADMIUM RED MEDIUM ■ Concentrated cadmium sulfo-selenide (PR108)
- ALIZARINCRIMSONPERMANENT □ Quinacridone red, perylene red, ultramarine blue (PV9, PR149, PB29)
- QUINACRIDONE RED □ Quinacridone red b (PV 19)
- DRAGONSBLOOD(PERYLENERED) □ Perylene Red (PR149)

**VIOLETS**

- COBALT VIOLET ■ Cobalt phosphate (PV 14)
- DIOXAZINE PURPLE □ Carbazol dioxazine (PV 23)
- ULTRAMARINE VIOLET □ Complex silicate of sodium & aluminum with sulfur (PV15)

**BLUES**

- ULTRAMARINE BLUE □ Complex silicate of sodium & aluminum with sulfur (PB29)
- COBALT BLUE ■ Oxides of cobalt & aluminum (PB28)
- MANGANESE BLUE □ Barium manganate (PB33)
- PRUSSIAN BLUE ■ Ferri-ammonium ferrocyanide (PB27:1)
- PHTHALO BLUE □ Copper phthalocyanine (PB15:2)

**GREENS**

- VIRIDIAN □ Hydrated chromium oxide (PG18)
- COBALT GREEN ■ Oxides of cobalt & zinc (PG19)
- CHROMIUMOXIDEGREEN ■ Chromium oxide green (PG 17)
- PERMANENT GREEN LIGHT ■ Chlorinated copper phthalocyanine (PG7), Diarylide yellow HR70 (PY83), (PY74)
- PHTHALO GREEN □ Chlorinated copper phthalocyanine (PG7)

**TRANSPARENT EARTHS**

- TRANSPARENTEARTHYELLOW □ Transparent Mars Yellow (PY42)
- TRANSPARENTEARTHORANGE □ Transparent Mars Yellow, Transparent Mars Red (PY42, PR101)
- TRANSPARENTEARTHRED □ Transparent Mars Red (PR101)
- TRANSPARENTEARHBROWN □ Transparent Mars Red (PR101)

**EARTHS**

- RAW SIENNA ■ Natural iron oxide (PBr7)
- BURNT SIENNA ■ Calcined natural iron oxide (PBr7)
- RAW UMBER ■ Natural iron oxide containing manganese (PBr7)
- BURNT UMBER ■ Calcined natural iron oxide containing manganese (PBr7)
- GREENISH UMBER ■ Natural iron oxide (PBr7), hydrated chromium oxide (PG18)
- BROWN MADDER ALIZARIN PERMANENT ■ Calcined natural iron oxide containing manganese, Quinacridone red, perylene red, ultramarine blue (PBr7, PV9, PR149, PB29)
- INDIAN RED ■ Synthetic red iron oxide (PR101)
- VENETIAN RED ■ Synthetic red iron oxide (PR 101)
- YELLOW OCHRE ■ Natural hydrated iron oxide (PY43)

**BLACKS & WHITES**

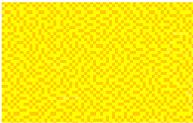
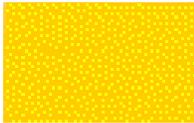
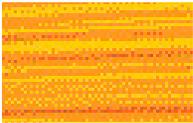
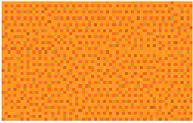
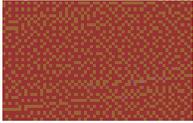
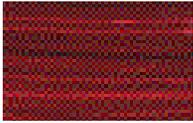
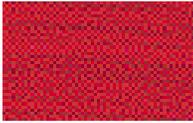
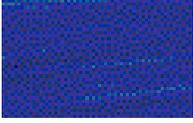
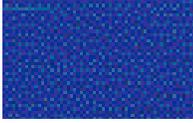
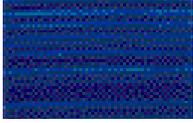
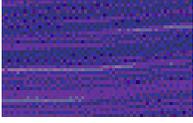
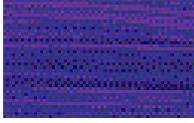
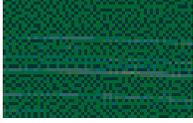
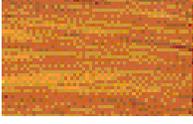
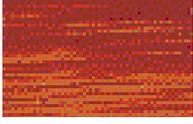
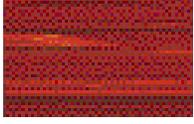
- IVORY BLACK ■ Bone black (PBk9)
- LAMP BLACK □ Carbon black (PBk7)
- BLACK SPINEL ■ Copper chromite black spinel (PBk28)
- TITANIUM WHITE ■ Titanium dioxide (PW6)
- EXTENDER WHITE □ Calcium carbonate (PW 18)

All colors are made from the Aldehydes in and solvents solution and the pigments listed. Modern organic pigments contain aluminum hydrate to properly adjust tinting strength for better working properties. All colors available in 15ml jars.

TRANSPARENCY KEY: ■ Opaque ■ Semi-transparent □ Transparent

GAMBLIN CONSERVATION COLORS

COLOR CHART & COMPOSITION OF COLORS

					
CADMIUMYELLOWLIGHT	CADMIUMYELLOWMEDIUM	HANSAYELLOWMEDIUM	INDIANYELLOWPERMANENT	NAPLES YELLOW LIGHT	NAPLES YELLOW DEEP
					
CADMIUM ORANGE	MARS ORANGE	CADMIUM RED LIGHT	CADMIUM RED MEDIUM	ALIZARINCRIMSONPERMANENT	QUINACRIDONE RED
					
ULTRAMARINE BLUE	COBALT BLUE	MANGANESE BLUE	PRUSSIAN BLUE	PHTHALO BLUE	DRAGON'S BLOOD (PERYLENE RED)
					
COBALT VIOLET	DIOXAZINE PURPLE	ULTRAMARINE VIOLET	VIRIDIAN	COBALT GREEN	CHROMIUMOXIDEGREEN
					
TRANSPARENTEARTHYELLOW	TRANSPARENTEARTHORANGE	TRANSPARENTEARTHRED	TRANSPARENTEARHBROWN	PERMANENT GREEN LIGHT	PHTHALO GREEN
					
RAW SIENNA	BURNT SIENNA	RAW UMBER	BURNT UMBER	GREENISH UMBER	BROWNMADDERALIZARIN PERMANENT
					
INDIAN RED	VENETIAN RED	YELLOW OCHRE	IVORY BLACK	LAMP BLACK	BLACK SPINEL

All colors highest light fastness

Binder: aldehydes in (Laropal A81), petroleum distillate mixture



TITANIUM WHITE



EXTENDER WHITE

Technical information, newsletters, list of retail outlets and order forms may be found at: [www.conservationscolors.com](http://www.conservationscolors.com)