

GlassTips: Opalescents

Information on selected sheet glass styles

Click on the small swatches on the left.

Note: This is a legacy resource, last updated April 2013. For information on new styles and accessory glasses (billet, frit, rod, stringer).



Reactive Cloud Opal
000009

Opaque White
000013

Tomato Red
000024



Tangerine Orange
000025

Light Peach Cream
000034

Black
000100



Stiff Black
000101

Powder Blue
000108

Mint Green
000112



White
000113

Cobalt Blue
000114

Turquoise Blue
000116



Mineral Green
000117

Periwinkle
000118

Mink
000119



Canary Yellow
000120

Red
000124

Orange
000125



Spring Green
000126

Artichoke
000131

Driftwood Gray
000132



Deco Gray
000136

French Vanilla
000137

Marzipan
Striker
000138



Almond Striker
000139

Dark Forest
Green
000141

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Lacy White
000143

Teal Green
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Jade Green
000145



Steel Blue
000146

Deep Cobalt
Blue
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Indigo Blue
000148



Egyptian Blue
000164

Woodland
Brown
000203

Elephant Gray
000206



Celadon Green
000207

Dusty Blue
000208

Olive Green
000212



Light Cyan
000216

Sunflower
Yellow
000220

Deep Red
000224



Pimento Red
000225

Golden Green
000227

Slate Gray
000236



Translucent
White
000243

Pink
000301

Dusty Lilac
000303



Salmon Pink
000305

Cinnabar
000309

Umber
000310



Pea Pod Green
000312

Dense White
000313

Marigold
Yellow
000320



Pumpkin
Orange
000321

Burnt Orange
000329

Plum Striker
000332



Gold Purple
000334

Deep Gray
000336

Butterscotch
000337



Opaline Striker
000403







Cream
000420

Petal Pink
000421




Warm White
000920

KEY TO ICONS

 Copper  Lead  Selenium  Silver  Sulfur  Striker

REACTIVE CLOUD OPAL 000009



May react with: 

Cold characteristics

Looks similar to [000113](#) with a slight blue tint.

Working notes

Easily confused with [000113](#). Reactive combinations have the potential to create an interface color, which may continue to develop through multiple firings. Copper-based reactions tend to be variations of deep red to black, while silver-based reactions are more likely to develop as

earth-tones. Reactions are generally related to the amount of copper and silver content, heatwork and surface area contact.

OPAQUE WHITE 000013



Cold characteristics

Consistent color.

Working notes

Stable. No color shift. Opaque White Powder (000013-0008F) is recommended for surface use only. It may crackle when used between sheet glass layers.

TOMATO RED 000024



Contains: **Se S**

May react with: **CuPbAg**



Cold characteristics

Partly transparent. May contain thin threads of color variation.

Working notes

Color opalizes upon firing, becoming more consistent. Color may dapple when held at high temperatures for a long time. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

TANGERINE ORANGE 000025



Contains: **Se S**

May react with: **CuPbAg**



Cold characteristics

May contain variation in color density.

Working notes

Opalizes upon firing, becoming darker and much more consistent in color. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

LIGHT PEACH CREAM 000034



Contains: **Se**

May react with: **CuPb**

Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

BLACK 000100



Cold characteristics

Although termed an opal due to its almost total lack of light transmission, this is (in terms of its composition) actually a transparent glass.

Working notes

Low viscosity. Will flow sooner and more than other glasses. In very thin sections the color may vary from reddish/gray to bluish/gray.

STIFF BLACK 000101



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

POWDER BLUE 000108



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

MINT GREEN 000112



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

WHITE 000113



Cold characteristics

Partly transparent. Slight dappling of color.

Working notes

Opalizes upon firing. Slight dappling apparent in transmitted light.

COBALT BLUE 000114



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

TURQUOISE BLUE 000116

Contains: **Cu**

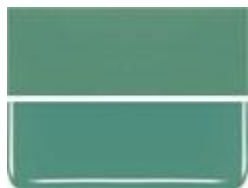
May react with: **Se S**

Cold characteristics

Consistent color.

Working notes

A copper glass. May have dark color reaction at interface with cadmium/selenium or sulfur glasses ([000125](#), [000120](#), [000124](#), [000137](#), [001120](#), [001125](#), [001122](#), [001137](#), [001437](#)).

MINERAL GREEN 000117**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

PERIWINKLE 000118



Cold characteristics

Solid opal with slightly dappled surface.

Working notes

Color is stable over extended range.

MINK 000119



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

CANARY YELLOW 000120



Contains: **S**

May react with: **CuPbAg**



Cold characteristics

Color variations common from pastel to vibrant yellow.

Working notes

Lighter coloration matures and becomes consistent to target upon firing. A sulfur glass. May react with with lead and copper glasses to create dark interface (lead sulfide, copper sulfide). This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

RED 000124



Contains: **Se S**

May react with: **CuPbAg**



Cold characteristics

Color variations common from red-orange to terra-cotta. Frequently lightly streaked and with yellow mottling on back of single-rolled sheet.

Working notes

A cadmium/selenium glass. Can react with lead-bearing glasses or overglazes. Possible reactions with [001311](#), [001215](#). Much color variation typical upon firing. If specific color is important, always test before beginning project. Use glasses from same dates. Do not assume that sheets of the same color when cold will fire identically. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

ORANGE 000125



Contains: **Se S**

May react with: **CuPbAg**



Cold characteristics

Color variations common from yellow-orange to red-orange. Some slight streaking common.

Working notes

Cadmium/selenium glass. Can fuse darker (more red) or lighter (more yellow) than cold sheet. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

SPRING GREEN 000126



Contains: **S**

May react with: **CuPbAg**



Cold characteristics

Color variations common from minty-pastel to vibrant yellow-green.

Working notes

Lighter coloration matures and becomes consistent to target upon firing. A sulfur glass. May react with with lead and copper glasses to create dark interface (lead sulfide, copper sulfide). This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

ARTICHOKE 000131



May react with: **Ag**

Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

DRIFTWOOD GRAY 000132



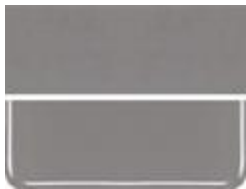
Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

DECO GRAY 000136



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

FRENCH VANILLA 000137



Contains: **S**

May react with: **CuPbAg**

Cold characteristics

Consistent color.

Working notes

A sulfur glass. May react with gold-bearing lead ([001311](#), [001215](#), [000301](#), [000305](#)) and copper ([001116](#), [001408](#), [001417](#), [000144](#), [000145](#), [000146](#)) glasses to create dark interface (lead sulfide, copper sulfide). Very viscous; will flow later and less than other glasses. Generally more sensitive to heat-history and more likely to show variation in color after fusing than many opals. When fired on edge, a clear distinction between outside and interior surfaces is commonly seen (a variation used by designers). This glass may become increasingly white with repeated firings. Consider using glass from the same batch for a given project.

MARZIPAN STRIKER 000138



Cold characteristics

May appear mostly transparent with variation in color density.

Working notes

Opalizes to a consistent, marzipan/off-white upon firing.

ALMOND STRIKER 000139



Cold characteristics

May appear mostly transparent with lacy patches of color.

Working notes

Opalizes to a consistent almond/off-white color upon firing.

DARK FOREST GREEN 000141



Cold characteristics

Partly transparent. Dappled backside.

Working notes

Opalizes upon firing. Dappling may occur, especially when held at high temperatures for a long time.

NEO-LAVENDER 000142



Cold characteristics

Will appear more pink in incandescent light; more blue in fluorescent.

Working notes

Hues of shift colors change depending on thickness and/or lighting, regardless of whether they have been fired or not.

LACY WHITE 000143**Cold characteristics**

White translucent glass with clear dapples suggesting lace.

Working notes

Clear dapples will strike to white, disappearing. Translucence of this now entirely white sheet will vary.

TEAL GREEN 000144

Contains: **Cu**

May react with: **Se S**

Cold characteristics

Some light/dark variations common on surface.

Working notes

Light/dark variations generally disappear on firing. Dark interface reaction likely with sulfur glasses ([001137](#), [001437](#), [000137](#)).

JADE GREEN 000145



Contains: **Cu**

May react with: **Se S**

Cold characteristics

Some light/dark variations common on surface.

Working notes

Light/dark variations generally disappear on firing. Dark interface reaction likely with sulfur glasses ([001137](#), [001437](#), [000137](#)).

STEEL BLUE 000146



Contains: **Cu**

May react with: **Se S**

Cold characteristics

Consistent color.

Working notes

At tack fusing temperatures, the surface frequently develops a metallic gray film. This usually disappears at full fusing temperatures. To avoid metallic filming, use an overglaze or cover with thin clear glass. To maintain the metallic effect, fire as quickly and low as possible. Consider stencil spraying of an overglaze to create patterns of metallic and non-metallic blue. Dark interface reaction likely with sulfur glasses ([001137](#), [001437](#), [000137](#)).

At a full fuse, Steel Blue Opalescent has the potential to deposit trace amounts of copper on the surface of the kilnshelf. These deposits may react with sulfur-bearing glasses in subsequent firings. Processes that require greater heatwork, such as pattern or flow bar techniques, can also lead to copper deposits. Such deposits may not be visible and can react even when the shelf has been properly scraped and reprimed or, alternatively, when used ThinFire has been removed and new ThinFire is applied. This type of contamination is impermanent and may be burned out/fired out over the course of subsequent firings. A contaminated shelf can be fired with glasses—other than sulfur-bearing glasses—and no reaction will take place. In our studios, we've observed the

greatest contamination in subsequent firings with sulfur-bearing French Vanilla Opalescent (000137) & Spring Green Opalescent (000126). For a burnout firing, we recommend a rate of 300°F/hr to 1525, with a hold of 1:00.

DEEP COBALT BLUE 000147



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

INDIGO BLUE 000148



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

EGYPTIAN BLUE 000164



Contains: **Cu**

May react with: **Se S**

Cold characteristics

Partly transparent.

Working notes

Opalizes upon firing. May contain thin threads of color variation.

At a full fuse, Egyptian Blue Opalescent has the potential to deposit trace amounts of copper on the surface of the kilnshelf. These deposits may react with sulfur-bearing glasses in subsequent firings. Processes that require greater heatwork, such as pattern or flow bar techniques, can also lead to copper deposits. Such deposits may not be visible and can react even when the shelf has been properly scraped and reprimed or, alternatively, when used ThinFire has been removed and new ThinFire is applied. This type of contamination is impermanent and may be burned out/fired out over the course of subsequent firings. A contaminated shelf can be fired with glasses—other than sulfur-bearing glasses—and no reaction will take place. In our studios, we've observed the greatest contamination in subsequent firings with sulfur-bearing French Vanilla Opalescent (000137) & Spring Green Opalescent (000126). For a burnout firing, we recommend a rate of 300°F/hr to 1525, with a hold of 1:00.

WOODLAND BROWN 000203



Contains: **Se S**

May react with: **CuPbAg**

Cold characteristics

Partly transparent.

Working notes

Opalizes upon firing. Color becomes slightly lighter with slight dappling. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

ELEPHANT GRAY 000206



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

CELADON GREEN 000207



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

DUSTY BLUE 000208



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

OLIVE GREEN 000212**Cold characteristics**

Consistent color. Partly transparent. Slightly dappled.

Working notes

Opalizes upon firing. Consistent color, slightly lighter than the cold sheet.

LIGHT CYAN 000216

Contains: **Cu**

May react with: **Se S**

Cold characteristics

Very slight orange-peel mottling.

Working notes

At full fuse, capped or uncapped, the mottling disappears and the color is consistent, even and pure. At slumping temperatures and low-tack fusing temperatures (1150-1325°F/621-718°C), gray clouding may occur (similar to Steel Blue [000146](#)), especially where contamination from oils and/or cleaner is left behind during the cleaning process.

Solution: cap this color with clear or test for each specific application. The clouding can be erased from an uncapped piece by capping with clear glass and firing to a full fuse.

SUNFLOWER YELLOW 000220



Contains: **Se S**

May react with: **CuPbAg**



Cold characteristics

Color variations common from pastel to warm, vibrant yellow.

Working notes

Lighter coloration matures and becomes consistent to target upon firing. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

DEEP RED 000224



Contains: **Se S**

May react with: **CuPbAg**



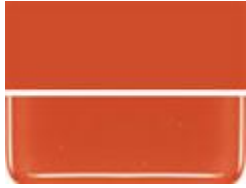
Cold characteristics

Color may appear partly transparent and contain variation in color density.

Working notes

Color may contain streaky variation. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

PIMENTO RED 000225



Contains: **Se S**

May react with: **CuPbAg**



Cold characteristics

Variation in color density.

Working notes

Color matures to red and becomes more consistent upon firing. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

GOLDEN GREEN 000227



Contains: **Se S**

May react with: **CuPbAg**



Cold characteristics

Browner than in the struck sheet, the color matures to golden green during the firing process.

Working notes

May reveal subtle light/dark green wisps in a full-fuse firing. When uncapped, the mottling is less noticeable and the color more even. When capped with clear, the mottling is more noticeable. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

Slate Gray 000236



Cold characteristics

Opalescent. Slight small mottle and orange-peel texture.

Working notes

Overall consistent, with some slight dappling. Dappling intensity may increase with prolonged heatwork.

TRANSLUCENT WHITE 000243



Contains: **Pb**

May react with: **Se S**



Cold characteristics

May appear mostly clear with patches of thin milky white.

Working notes

Opalizes upon firing. Consistent color, thin milky white. Color may become slightly streaky and transparent when held at high temperatures for a long time.

PINK 000301



Contains: **Pb**

May react with: **Se S**



Cold characteristics

Surface color variations common; some light dappling. Color range from light pink to deeper shades of lavender pink. Slight mottling on back of sheet.

Working notes

Typically deepens in coloration on firing. Dark interface reaction possible with sulfur glasses ([001137](#), [001437](#), [000137](#)). Mottling disappears on firing.

DUSTY LILAC 000303



Contains: **Pb**

May react with: **Se S**

Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

SALMON PINK 000305



Contains: **Pb**

May react with: **Se S**



Cold characteristics

Color range from paler to deep shades. Some variations from pink to brown tones. Slight mottling on back of sheet.

Working notes

Generally deepens in hue on firing. Dark interface reaction possible with sulfur glasses ([001137](#), [001437](#), [000137](#)). Mottling disappears on firing.

CINNABAR 000309



Contains: **Se S**

May react with: **CuPbAg**



Cold characteristics

May appear very muted gray/brown with streaks or variation in color density.

Working notes

Matures to a red/cinnabar color. May appear slightly dappled. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

UMBER 000310



Contains: **Se S**

May react with: **CuPbAg**



Cold characteristics

Variation in color density. May be partly transparent.

Working notes

Opalizes to a more consistent color. May dapple slightly. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It

may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

PEA POD GREEN 000312



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

DENSE WHITE 000313



Contains: **Pb**

May react with: **Se S**

Cold characteristics

Consistent color.

Working notes

Bullseye discontinued Dense White 000313 from the standard product line because the glass can be unstable when subjected to extended heatwork. Firing above 1500°F/815°C for more than 15 minutes or firing slowly between 1250°F/677°C and 1500°F/815°C may result in an unstable glass. No color shift upon firing. A dark interface reaction is possible with sulfur-bearing glasses ([001137](#), [000137](#)). Dense White Powder (000313-0008F) is recommended for surface use only. It may crackle when used between sheet glass layers.

MARIGOLD YELLOW 000320



Contains: **Se S**

May react with: **CuPbAg**



Cold characteristics

May appear partly transparent with wide variations in color density. Overall look of a lighter, brighter yellow such as [000120](#).

Working notes

Matures to an opaque marigold yellow. May appear slightly dappled. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

PUMPKIN ORANGE 000321



Contains: **Se S**

May react with: **CuPbAg**



Cold characteristics

May contain variations in color density.

Working notes

Matures to pumpkin orange, which may contain slight color variations. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

BURNT ORANGE 000329



Contains: **Se S**

May react with: **CuPbAg**



Cold characteristics

Opalescent. Slight small mottle and orange-peel texture.

Working notes

At full fuse and capped with clear glass, the mottling may remain but become faint in transmitted light. Lighter wisps may appear in reflected light. When uncapped, the mottling tends to even out and the color becomes more consistent and even.

This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

PLUM STRIKER 000332



Cold characteristics

Translucent purple with light plum wisps.

Working notes

Strikes to a consistent opal. Color darkens with extended heat work.

GOLD PURPLE 000334



Contains: **Pb**

May react with: **Se S**



Cold characteristics

Appears a deep royal blue hue with areas of transparency and variations in color density.

Working notes

Matures to a consistent gold/purple. May become much darker when held at high temperatures for a long time.

DEEP GRAY 000336



Cold characteristics

Opalescent. Slight small mottle and orange-peel texture.

Working notes

Overall consistent, with some slight dappling. Dappling intensity may increase with prolonged heatwork.

BUTTERSCOTCH 000337



Contains: **Se S**

May react with: **CuPbAg**



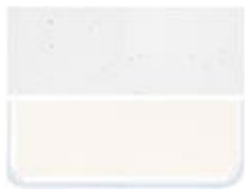
Cold characteristics

Opalescent. Slight small mottle and orange-peel texture.

Working notes

At full fuse and capped with clear glass, the mottling usually remains. When fired uncapped, the mottling is less obvious and the color evens out to become more consistent. This style is not suitable for kilncasting because it can become incompatible when held at high temperatures for an extended period. It may also become incompatible in instances where processes the [parameters of the test for compatibility](#). Testing recommended when heatwork exceeds these parameters.

OPALINE STRIKER 000403



Cold characteristics

Looks like clear sheet with few wisps of white.

Working notes

Matures at full fuse temperatures. Turns more opaque with extended heat work. Works well over bright opal colors to create pastels.

CREAM 000420



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

PETAL PINK 000421



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

WARM WHITE 000920

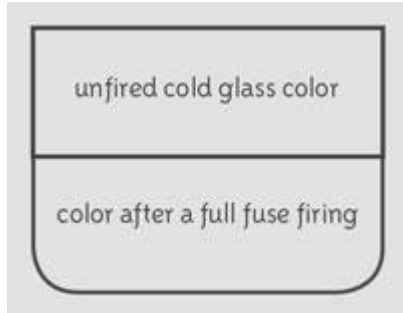


Cold characteristics

Consistent color.

Working notes

Stable. No color shift.



OPALESCENT NOTES

For split images, the top row shows the double-rolled, unfired cold glass color. The bottom row show the same glass after firing to a full fuse. If the image isn't split, the color is consistent with no color shift.

For stained glass, refer to the top row. For kilnformed glass, refer to the bottom row.

Swatches shown are about two inches wide.

GlassTips describe **ONLY** the results of standard full fuse + slumping firings, i.e.: glass 6 mm thick, 10" (25cm) square, fired to 1480°F (804°C), held for 10 minutes, then fired a second time to 1250°F (677°C) for 30 minutes.

To best ensure success, test glasses before use under your specific firing conditions. Use GlassTips information as a starting point only.

Glass reactivity: Not all reactions are visible. Some are too weak to be seen and others are masked by dark color.

"Striking glasses" change dramatically to reach target color during firing. Colors may vary, depending on firing schedule, rate, atmosphere, and heatwork. For color-sensitive projects, test before use.

Thin opal glasses (-0050) may appear more transparent in the cold sheet than their 3 mm (-0030) opal counterparts.

Some opal glasses may appear inconsistent in color and/or opalescence in the cold sheet. Upon firing, color and density will appear more even.