



GLASSTIPS: TRANSPARENTS

What to expect from selected Bullseye sheet glass.

This handy reference guide explains what you can expect from your Bullseye sheet glass colors before and after heatwork in the kiln. Click on the small style swatches to the left to get info on individual colors. Check back to explore additional styles as they are added.

OPALESCENTS TRANSPARENTS

thin unfired cold glass color	3 mm unfired cold glass color
thin color after a full fuse firing	3 mm color after a full fuse firing

TRANSPARENT NOTES

For each style, the top row shows the double-rolled, unfired cold glass color. For stained glass, refer to the top row.

The same glass after firing to a full fuse is shown directly below the cold glass. 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 6mm 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.

Key to icons



REACTIVE ICE CLEAR 001009



May react with:  

Cold characteristics

Similar appearance to [001101](#) except it may include a slight tint of color (blue to green).

Working notes

Easily confused with [001101](#). 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. Learn more about this style by downloading our [Get a Reaction](#) PDF.

-0031 (rainbow irid)

Strong reactions may permeate the iridized surface, finding greater surface contact through thinner sections of the irid coating (gold, silver) and minute fissures throughout. Crackle patterning is generally more open where the irid coating is thicker and transitions to dense coverage in thinner sections. Expect variation.

LIGHT ORANGE STRIKER 001025

Contains:  



May react with: **Cu** **Pb** **Ag**



Cold characteristics

Striker. May vary from transparent clear to pale yellow.

Working notes

Fires to a stable, consistent color. This style not suitable for kilncasting because it can opalize when held at high temperatures for a long time. It may also opalize in other instances in which processes exceed the [parameters of the test for compatibility](#).

CLEAR 001101



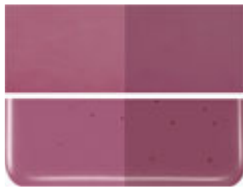
Cold characteristics

Very faint green tint when viewed on edge.

Working notes

Stable. No color shift.

DEEP PLUM 001105



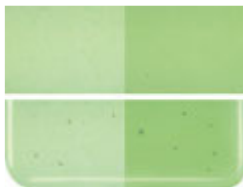
Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

LIGHT GREEN 001107



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

AQUAMARINE BLUE 001108



Cold characteristics

Ranges from bluer-green to greener-blue.

Working notes

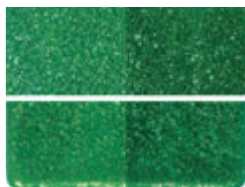
Stable. No color shift.

DARK ROSE BROWN 001109**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

AVENTURINE GREEN 001112**Cold characteristics**

A supersaturated chrome glass with metal flake glints in reflected light.

Working notes

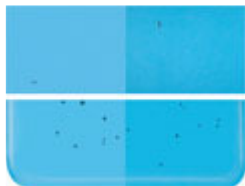
Stable. No color shift.

DEEP ROYAL BLUE 001114**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

TURQUOISE BLUE 001116Contains: May react with:  **Cold characteristics**

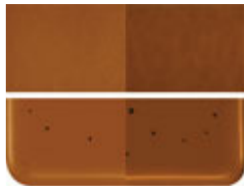
Fairly consistent color from run to run in cold sheet.

Working notesA copper glass. May have black interface reaction with certain cadmium and/or sulfur glasses ([001137](#), [001437](#), [000137](#), [000120](#), [000125](#), [001125](#), etc.).**MIDNIGHT BLUE** 001118**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

SIENNA 001119

Contains: **Se S**

May react with: **Cu Pb Ag**

Cold characteristics

Consistent color.

Working notes

This style not suitable for kilncasting because it can opalize when held at high temperatures for a long time. It may also opalize in other instances in which processes exceed the [parameters of the test for compatibility](#).

YELLOW 001120

Contains: **S**

May react with: **Cu Ag**

**Cold characteristics**

Consistent color.

Working notes

A cadmium glass. May fire slightly deeper than the cold sheet. May react with copper glasses. See notes on [001116](#). This style not suitable for kilncasting because it can opalize when held at high temperatures for a long time. It may also opalize in other instances in which processes exceed the [parameters of the test for compatibility](#).

RED 001122

Contains: **Se S**

May react with: **Cu Pb Ag**

**Cold characteristics**

Variations from orange-red to dark red. "Catspaw" windows of lighter coloration typical of single-rolled sheets.

Working notes

A cadmium/selenium glass. Generally fires deeper (more red) than cold sheet. "Catspaw" effect disappears on firing. See general notes on striking glasses. This style not suitable for kilncasting because it can opalize when held at high temperatures for a long time. It may also opalize in other instances in which processes exceed the [parameters of the test for compatibility](#).

ORANGE 001125

Contains: **Se S**

May react with: **Cu Pb Ag**

**Cold characteristics**

Some variation from more yellow-orange to red-orange.

Working notes

A cadmium/selenium glass. Generally fires deeper (more red) than cold sheet. See general notes on striking

glasses. This style not suitable for kilncasting because it can opalize when held at high temperatures for a long time. It may also opalize in other instances in which processes exceed the [parameters of the test for compatibility](#).

CHARTREUSE 001126

Contains: 

May react with:   

**Cold characteristics**

Color may appear varied in density.

Working notes

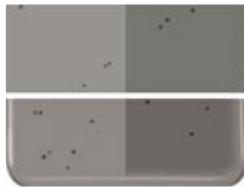
More consistent color density. No shift in hue. With excessive heatwork, color opalizes and turns a dense green/brown.

DEEP ROYAL PURPLE 001128**Cold characteristics**

Very dark glass. Little light transmission in 3 mm thickness.

Working notes

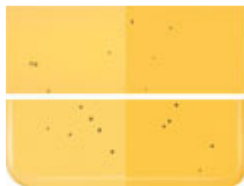
Stable. No color shift.

CHARCOAL GRAY 001129**Cold characteristics**

Very dark glass. May have very slight pink/purple coloration of gray.

Working notes

Stable. No color shift.

MEDIUM AMBER 001137

Contains: 

May react with:   

Cold characteristics

Varies slightly from lighter to darker shade.

Working notes

A sulfur glass. May have dark interface reaction with copper-bearing ([001116](#), [001408](#), [001417](#), [000116](#), [000144](#), [000145](#), [000147](#)) and lead-bearing ([001311](#), [001215](#), [000301](#), [000305](#)) glasses.

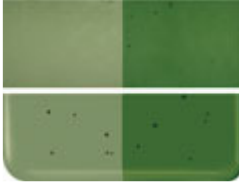
AVENTURINE BLUE 001140

**Cold characteristics**

Cold sheet has grainy, sandy surface texture. Even though this style is listed in the 'Transparent' glass category, very little light is transmitted through the 3mm sheet.

Working notes

Stable, no color shift. Softens more than most glasses at fusing temperature. Even though this style is listed in the 'Transparent' glass category, note that it does not transmit light in the 3mm sheet.

OLIVE GREEN 001141**Cold characteristics**

Consistent color.

Working notes

No color shift. Color may become slightly cloudy when held at high temperatures for a long time.

KELLY GREEN 001145

Contains: **Cu**

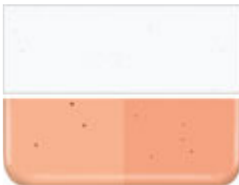
May react with: **Se S**

Cold characteristics

Consistent color.

Working notes

Color may become slightly cloudy when held at high temperatures for a long time.

LIGHT CORAL STRIKER 001205

Contains: **Pb**

May react with: **Se S**

**Cold characteristics**

Striker. Transparent clear. On edge, resembles 001101.

Working notes

Fires to a stable, consistent color.

FERN GREEN 001207

Contains: **S**

May react with: **Cu Pb Ag**

Cold characteristics

Lighter than 001107.

Working notes

Consistent, solid color.

LIGHT PINK STRIKER 001215

Contains: **Pb**

**Cold characteristics**

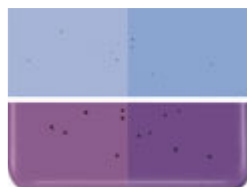
Varies from lighter to darker; sometimes with lighter dappling in single-rolled sheets. Generally lighter and slightly more blue/pink than 001311.

Working notes

Color usually deepens on firing. Possible dark interface reaction with selenium and/or sulfur glasses ([001122](#), [001125](#), [000124](#), [000125](#), [001137](#), [001437](#), [000137](#)). Less viscous (softer) than most other glasses. Some striking glasses like this one need to be fired slowly during the initial stages of the firing cycle. If fired too fast they may not strike at all or they may strike, but appear spotty and have a blue-brown cast as opposed to the desired target color. A standard full-fuse schedule should work to strike these glasses:

Rate	Temp	Hold
400	1250	:45
600	1480	:10
9999	960	*

*Remainder of cycle depends on thickness of piece. Consult [TechNotes](#) on our website for an annealing chart. For projects that are especially color-sensitive, we recommend fusing a small sample, with a similar setup in the same kiln, to best predict final color results.

VIOLET STRIKER 001234

Contains: **Pb**

May react with: **Se S**

**Cold characteristics**

A deep royal blue color.

Working notes

Fires to a consistent, transparent violet. Color may become slightly cloudy when held at high temperatures for a long time.

PINE GREEN 001241

Contains: **S**

May react with: **Cu Pb Ag**

Cold characteristics

May include brown areas.

Working notes

At full-fuse temperatures, the brown areas appear as transparent wisps. Such wisping is more noticeable in a thin (-50) sheet and would be amplified by fusing an opalescent glass style under it. Unless a pure pine green is desired, these uniform wisps could be used as a design feature.

SUNSET CORAL 001305

Contains: **Pb**



May react with: **Se S**



Cold characteristics

Color is transparent and varies in density.

Working notes

Fires to a consistent, more highly saturated color. May turn lighter and more transparent when held at high temperatures for a long time.

CRANBERRY PINK 001311



Contains: **Pb**

May react with: **Se S**



Cold characteristics

Varies slightly from lighter to darker shade; sometimes with lighter dappling in single-rolled sheets.

Working notes

Color will almost always deepen on firing. Possible dark interface reaction with selenium and/or sulfur glasses ([001122](#), [001125](#), [000124](#), [000125](#), [001137](#), [001437](#), [000137](#)). Less viscous (softer) than most other glasses. Some striking glasses like this one need to be fired slowly during the initial stages of the firing cycle. If fired too fast they may not strike at all or they may strike, but appear spotty and have a blue-brown cast as opposed to the desired target color. A standard full-fuse schedule should work to strike these glasses:

Rate	Temp	Hold
400	1250	:45
600	1480	:10
9999	960	*

*Remainder of cycle depends on thickness of piece. Consult [TechNotes](#) on our website for an annealing chart. For projects that are especially color-sensitive, we recommend fusing a small sample, with a similar setup in the same kiln, to best predict final color results.

MARIGOLD YELLOW 001320



Contains: **Se S**

May react with: **Cu Pb Ag**



Cold characteristics

Consistent color.

Working notes

This style not suitable for kilncasting because it can opalize when held at high temperatures for a long time. It may also opalize in other instances in which processes exceed the [parameters of the test for compatibility](#).

CARNELIAN 001321



Contains: **Se S**

May react with: **Cu Pb Ag**



Cold characteristics

Consistent color.

Working notes

Stable and consistent color. This style not suitable for kilncasting because it can opalize when held at high temperatures for a long time. It may also opalize in other instances in which processes exceed the [parameters of the test for compatibility](#).

GARNET RED 001322

Contains: **Se S**

May react with: **Cu Pb Ag**

**Cold characteristics**

Appears light in color saturation with thin threads of color variation.

Working notes

Matures to a more consistent color with deeper saturation. May contain subtle threads of darker color. This style not suitable for kilncasting because it can opalize when held at high temperatures for a long time. It may also opalize in other instances in which processes exceed the [parameters of the test for compatibility](#).

FUCHSIA 001332

Contains: **Pb**

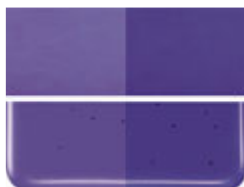
May react with: **Se S**

**Cold characteristics**

Consistent color.

Working notes

May become cloudy with excessive heatwork.

GOLD PURPLE 001334

Contains: **Pb**

May react with: **Se S**

**Cold characteristics**

Appears as a dark transparent. May appear to be blue in color.

Working notes

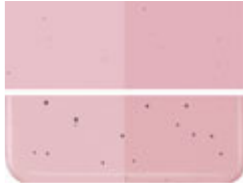
Fires to a consistent, transparent, deep purple.

CRYSTAL CLEAR 001401**Cold characteristics**

Brilliant colorless clear.

Working notes

When fired over colored glass, allows more pure, true hue of base color to show. Especially true in thicker sections.

LIGHT PLUM 001405**Cold characteristics**

Consistent color.

Working notes

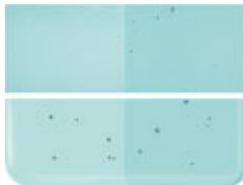
Stable. No color shift.

STEEL BLUE 001406**Cold characteristics**

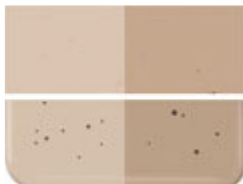
Consistent color.

Working notes

Stable. No color shift.

LIGHT AQUAMARINE 001408**Contains:** **May react with:**  **Cold characteristics**

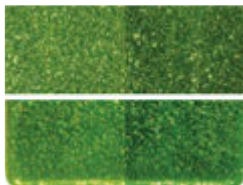
Consistent color.

Working notesA copper glass. Possible dark interface reactions with sulfur ([000137](#), [001137](#), [001437](#)) glasses.**LIGHT BRONZE** 001409**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

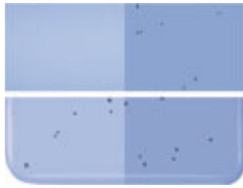
LIGHT AVENTURINE GREEN 001412**Cold characteristics**

Consistent color.

Working notes

Opalizes slightly upon firing.

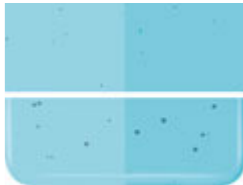
LIGHT SKY BLUE 001414

**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

LIGHT TURQUOISE BLUE 001416Contains: **Cu**May react with: **Se S****Cold characteristics**

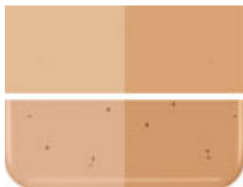
Consistent color.

Working notes

Stable. No color shift.

EMERALD GREEN 001417Contains: **Cu**May react with: **Se S****Cold characteristics**

Slight variation within blue to yellow range.

Working notesA copper glass. Possible dark interface reactions with sulfur ([000137](#), [001137](#), [001437](#)) glasses.**TAN** 001419**Cold characteristics**

Consistent color.

Working notes

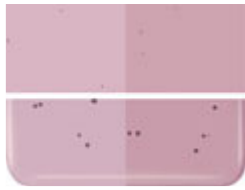
Stable. No color shift.

SPRING GREEN 001426**Cold characteristics**

Slight variation within blue to yellow range.

Working notes

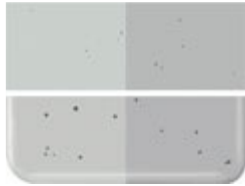
Stable. No color shift.

LIGHT VIOLET 001428**Cold characteristics**

Consistent color.

Working notes

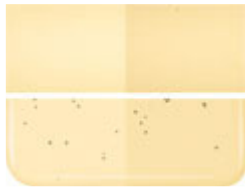
Stable. No color shift.

LIGHT SILVER GRAY 001429**Cold characteristics**

Slight variations from lighter to darker.

Working notes

Stable. No color shift.

LIGHT AMBER 001437

Contains: **S**

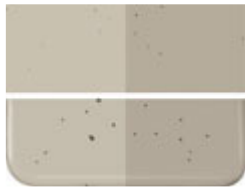
May react with: **Cu Pb Ag**

Cold characteristics

Varies slightly from lighter to darker shade.

Working notes

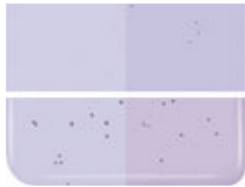
A sulfur glass. May have dark interface reaction with copper-bearing ([001116](#), [001408](#), [001417](#), [000116](#), [000144](#), [000145](#), [000147](#)) and lead-bearing ([001311](#), [001215](#), [001301](#), [000305](#)) glasses.

KHAKI 001439**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

NEO-LAVENDER 001442**Cold characteristics**

Color variations from pink to blue depending on light in which viewed: natural, incandescent, or fluorescent.

Working notes

When fused over other colors, (e.g. red, orange), may tend to deepen or brighten them.

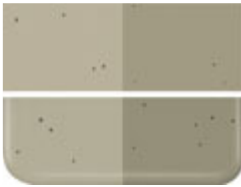
SEA BLUE 001444

**Cold characteristics**

Consistent color.

Working notes

Stable, no color shift.

OREGON GRAY 001449**Cold characteristics**

Consistent color.

Working notes

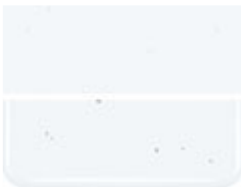
Stable. No color shift.

TRUE BLUE 001464Contains: **Cu**May react with: **Se S****Cold characteristics**

Consistent color.

Working notes

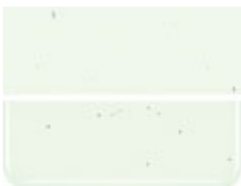
Stable, no color shift.

JUNIPER BLUE TINT 001806**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

GRASS GREEN TINT 001807**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

AQUA BLUE TINT 001808



Contains: **Cu**

May react with: **Se S**

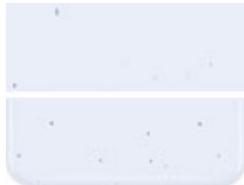
Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

INDIGO TINT 001818



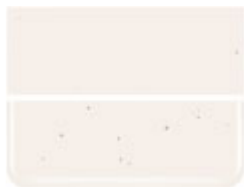
Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

BROWN TOPAZ TINT 001819



Cold characteristics

Consistent tint throughout sheet.

Working notes

Color is stable over extended range.

PALE YELLOW TINT 001820



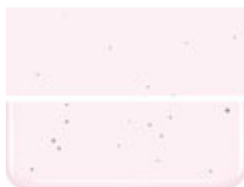
Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

ERBIUM PINK TINT 001821



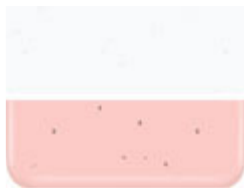
Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

BURNT SCARLET TINT, STRIKER 001823



Contains: **Pb** **Ag**

May react with: **Se** **S**



Cold characteristics

Appears almost clear with blue/green tints.

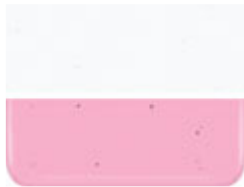
Working notes

Matures to a consistent burnt-scarlet tint. Some striking glasses like this one need to be fired slowly during the initial stages of the firing cycle. If fired too fast they may not strike at all or they may strike, but appear spotty and have a blue-brown cast as opposed to the desired target color. A standard full-fuse schedule should work to strike these glasses:

Rate	Temp	Hold
400	1250	:45
600	1480	:10
9999	960	*

*Remainder of cycle depends on thickness of piece. Consult [TechNotes](#) on our website for an annealing chart. For projects that are especially color-sensitive, we recommend fusing a small sample, with a similar setup in the same kiln, to best predict final color results.

RUBY RED TINT, STRIKER 001824



Contains: **Pb**

May react with: **Se** **S**



Cold characteristics

Appears close to clear with blue/green tints.

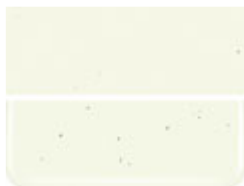
Working notes

Matures to a consistent ruby red tint. Some striking glasses like this one need to be fired slowly during the initial stages of the firing cycle. If fired too fast they may not strike at all or they may strike, but appear spotty and have a blue-brown cast as opposed to the desired target color. A standard full-fuse schedule should work to strike these glasses:

Rate	Temp	Hold
400	1250	:45
600	1480	:10
9999	960	*

*Remainder of cycle depends on thickness of piece. Consult [TechNotes](#) on our website for an annealing chart. For projects that are especially color-sensitive, we recommend fusing a small sample, with a similar setup in the same kiln, to best predict final color results.

GREEN TEA TINT 001826



Contains: **Se** **S**

May react with: **Cu** **Pb**

Cold characteristics

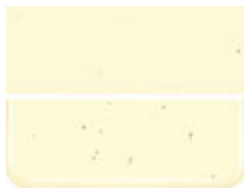
Consistent color.

Working notes

Stable. No color shift.

LIGHT AMBER TINT 001827

Contains: **Se** **S**



May react with:  

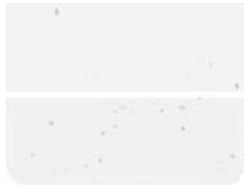
Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

GRAY TINT 001829



Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

RUBY PINK TINT, STRIKER 001831



Contains: 

May react with:  



Cold characteristics

Appears almost clear with blue/purple tint.

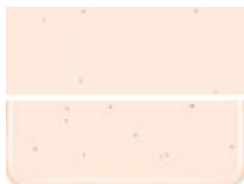
Working notes

Matures to a consistent ruby pink tint. Becomes more pink with excessive heatwork. Some striking glasses like this one need to be fired slowly during the initial stages of the firing cycle. If fired too fast they may not strike at all or they may strike, but appear spotty and have a blue-brown cast as opposed to the desired target color. A standard full-fuse schedule should work to strike these glasses:

Rate	Temp	Hold
400	1250	:45
600	1480	:10
9999	960	*

*Remainder of cycle depends on thickness of piece. Consult [TechNotes](#) on our website for an annealing chart. For projects that are especially color-sensitive, we recommend fusing a small sample, with a similar setup in the same kiln, to best predict final color results.

CORAL ORANGE TINT 001834



Contains: 

May react with:   

Cold characteristics

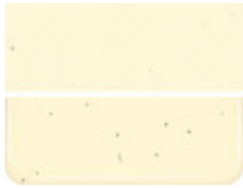
Consistent color.

Working notes

Stable. No color shift.

MEDIUM AMBER TINT 001837

Contains: 



May react with: **Cu** **Pb** **Ag**

Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

DARK AMBER TINT 001838



Contains: **S**

May react with: **Cu** **Pb** **Ag**

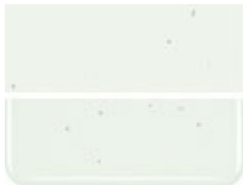
Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

SPRUCE GREEN TINT 001841



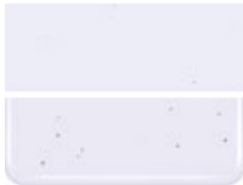
Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

LT NEO-LAVENDER SHIFT TINT 001842



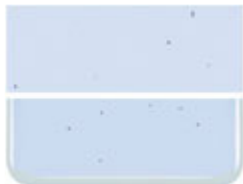
Cold characteristics

Consistent color.

Working notes

Stable. No color shift. The hues of shift colors change depending on the thickness and/or lighting of the casting.

LAVENDER GREEN SHIFT TINT 001844



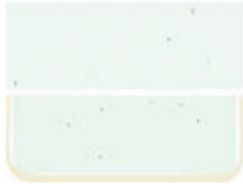
Cold characteristics

Color may shift from purple to green depending on light source and thickness.

Working notes

Color is stable over extended range.

LIGHT RHUBARB SHIFT TINT 001858

**Cold characteristics**

Color may shift from red to green depending on light source and thickness.

Working notes

Color is stable over extended range.

RHUBARB PINK/GREEN SHIFT TINT 001859

Contains: **Se**

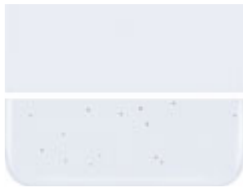
May react with: **Cu Pb Ag**

Cold characteristics

Consistent color.

Working notes

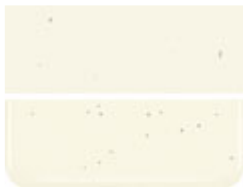
Stable. No color shift. The hues of shift colors change depending on the thickness and/or lighting of the casting.

GRAY BLUE TINT 001864**Cold characteristics**

Consistent color.

Working notes

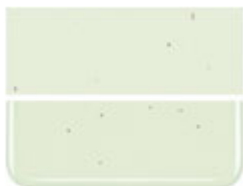
Stable. No color shift.

OLIVE SMOKE TINT 001867**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

OLIVINE TINT 001877**Cold characteristics**

Consistent tint throughout sheet.

Working notes

Color is stable over extended range.

LEMON TINT 001920

**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

FUCHSIA TINT 001932**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

COPPER TINT 001934**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift. Despite its name, Copper Tint contains no copper and is not a reactive glass.

PURPLE BLUE TINT 001948**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

LAVENDER GRAY TINT 001964**Cold characteristics**

Consistent color.

Working notes

Stable. No color shift.

PINE GREEN TINT 001977

Cold characteristics

Consistent color.

Working notes

Stable. No color shift.

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