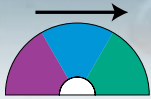


# VORTEX<sup>®</sup>

the premier waterborne solution

# Tinting Guide

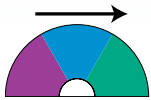
## BLUES



**Green Shade Blue**

**V340**

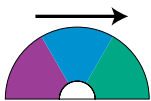
Blue with a green face and green flop. Our greenest on the face and flop. Gives a clean green cast in both metallic and solid colors.



**Green Shade Trans Blue**

**V341**

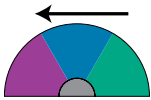
Blue with a green face and a very red flop. Should only be used if already in formula.



**Bright Blue**

**V342**

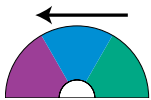
Blue with a green face and slightly red flop.



**HS Red Shade Blue**

**V343**

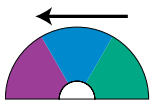
Red face and red flop PC blue. Used to tint solid, metallic, and pearl colors.



**Trans Red Shade Blue**

**V344**

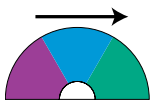
Unique transparent red face and slightly green flop PC blue. Used to tint metallic and pearl colors. Should only be used if already in the formula.



**HS Indo Blue**

**V345**

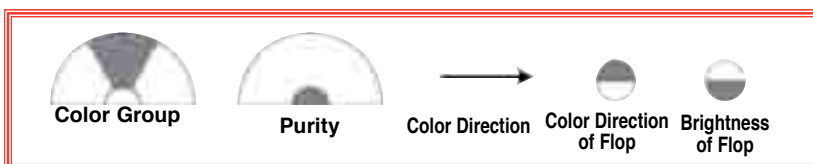
Our reddest shade blue on the face and flop. Gives a red cast to both solid and metallic colors. Appears very red and dirty.



**Low Strength Blue**

**V347**

Used to increase mixing accuracy in whites, silvers and pastel colors. Blue with a green face and slightly red flop.

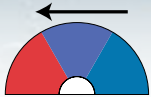


# VORTEX<sup>®</sup>

the premier waterborne solution

# Tinting Guide

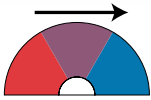
## VIOLETS



Purple

V346

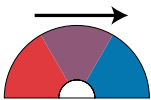
Very red shade blue on the face and flop. Do not use unless already in the formula.



Violet

V370

Blue cast in solid and metallic colors on the face and flop. Blue and dirty compared to V380.



Low Strength Violet

V371

Used to increase mixing accuracy in whites, silvers and pastel colors. Gives a blue cast in solid and metallic colors.

## MAGENTAS & MAROONS



Maroon

V350

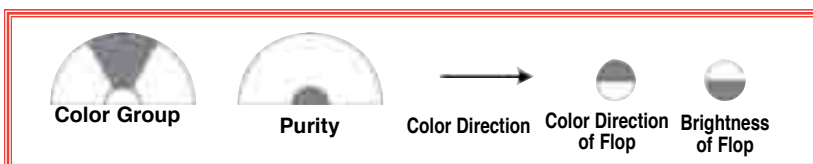
Gives a blue face with a yellow flop. Used in maroons and dark red metallics.



Magenta

V380

Clean blue cast in solid and metallic colors. Cleaner in metallics than Violet V370.

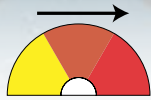


# VORTEX®

the premier waterborne solution

# Tinting Guide

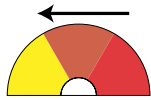
## REDS & ORANGES



**Fast Orange**

**V320**

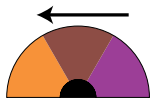
Dirty opaque orange for use in solid red, yellow and orange colors. Not as bright and clean as V321 Bright Orange in full strength or in red combinations.



**Bright Orange**

**V321**

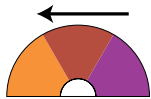
Very clean orange for use in solid red, yellow and orange colors. Not to be used for tinting metallics or white.



**Red Oxide**

**V381**

Very opaque dirty yellow shade red. Excellent to tint solid white. Use only small amounts when tinting metallics colors.



**Bright Red**

**V382**

Clean opaque red for use in solid red, yellow and orange colors. Do not use in white or metallics.



**Blue Shade Red**

**V383**

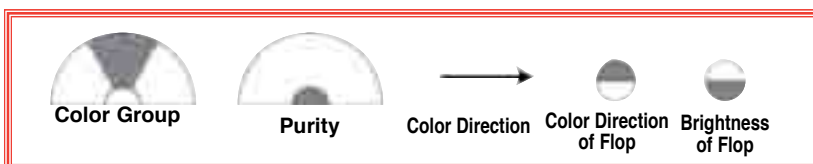
Blue shade red on the face and flop. Used in solid reds, whites, and red metallics.



**Brilliant Red**

**V384**

Very transparent bright blue shade red. Use for metallic and pearl colors.

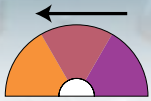


# VORTEX®

the premier waterborne solution™

## Tinting Guide

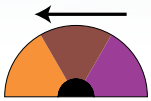
### REDS & ORANGES



**Scarlet Red**

**V385**

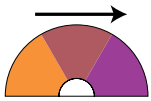
Very transparent bright yellow shade red. Use for metallic and pearl colors.



**Low Strength Red**

**V386**

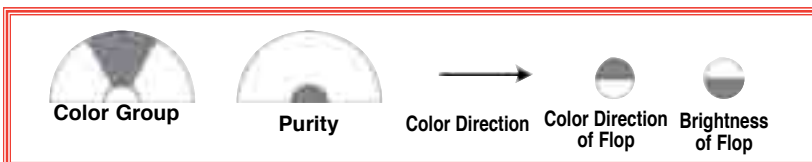
Used to increase mixing accuracy in whites, silvers and pastel colors. Very opaque, dirty yellow shade red.



**Laser Red**

**V387**

Highly transparent blue shade red with high chroma used to make red midcoats and chromatic solid reds.

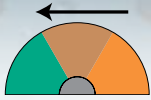


# VORTEX®

the premier waterborne solution™

## Tinting Guide

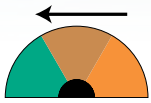
### YELLOWS



**Transoxide Yellow**

**V400**

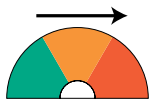
Transparent green shade yellow. Used in gold and silver metallic colors.



**Yellow Oxide**

**V401**

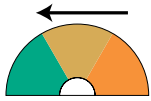
Very opaque dirty yellow. Gives a dirty yellow cast to solid colors.



**Orange Shade Yellow**

**V402**

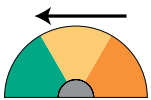
Red shade yellow on the face with a light red flop.



**Green Shade Yellow**

**V403**

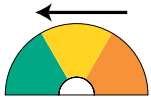
Used primarily in metallics. Transparent yellow with a green face and very green flop.



**Pale Yellow**

**V404**

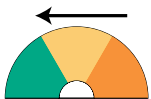
Green shade very opaque yellow. Lacks color intensity. Weak tinting effect.



**Bright Yellow**

**V405**

Bright Yellow with a slightly green cast. Our cleanest Yellow.



**Fast Yellow**

**V406**

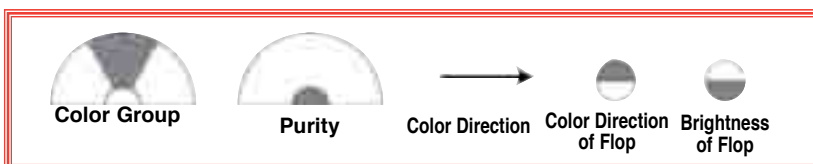
Bright green shade yellow used in solid red, yellow and orange colors.



**Low Strength Yellow**

**V407**

Used to increase mixing accuracy in whites, silvers, ferrite and pastel colors. Very opaque dirty yellow.

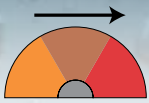


# VORTEX®

the premier waterborne solution™

# Tinting Guide

## GOLD

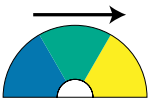


Red Transoxide

V360

Dirty transparent red shade gold. Gives a red brown cast on the face and flop.

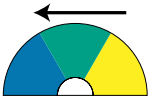
## GREENS



Yellow Shade Green

V330

Green with a yellow cast on the face and flop.

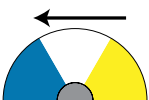


Blue Shade Green

V331

Green with a blue cast on the face and flop.

## WHITE



White

V390

High strength bright white.

## BLACKS



Deep Black

V310

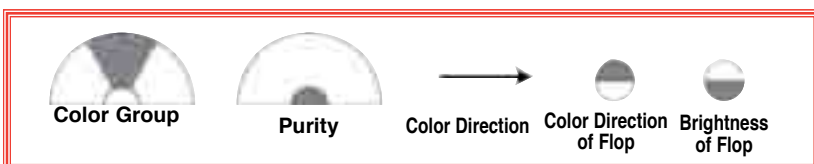
High jetness carbon black for use in solid blacks and to tint other colors. Readily darkens flop of metallic colors.



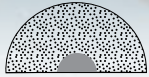
Lampblack

V311

Moves colors darker and dirtier on the face and flop. Has a blue chalky undertone.



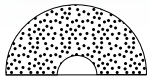
## BASECOAT ALUMINUMS



**Small Aluminum**

**V411**

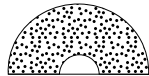
Small flake size. Lighter on the flop than V412 Bright Small Aluminum.



**Bright Small Aluminum**

**V412**

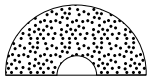
Small flake size. Bright on the face and slightly darker on the flop than V411 Small Aluminum.



**Bright Medium Aluminum**

**V413**

Small round shape flake. Gives a grainy bright sparkle with a dark flop.



**Medium Aluminum**

**V414**

Medium shape flake. Lighter on the flop than V413.



**Large Aluminum**

**V415**

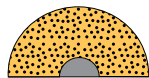
Large flake size. Lighter flop than V416 Coarse Aluminum.



**Coarse Aluminum**

**V416**

Large pancake shape flake. Brighter face and darker flop than V415 Large Aluminum.



**Gold Aluminum**

**V420**

Medium size gold flake metallic. Used in addition to or substitute for silver metallic or mica. Gives a gold sparkle with a yellow flop.

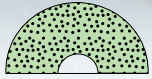


# VORTEX®

the premier waterborne solution™

# Tinting Guide

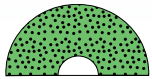
## PEARLS



**Green Pearl**

**V430**

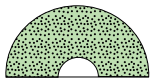
Used in addition to or substitute for metallic. Gives a blue green face and yellow green flop.



**Moss Green Pearl**

**V431**

Used in addition to or substitute for metallic. Clean green mica with a blue green face and yellow green flop. Yellower and stronger in tinting strength than V430 Green Pearl.



**Fine Green Pearl**

**V432**

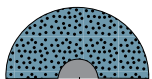
Used in addition to or substitute for metallic. Gives a blue green face and a yellow green flop. Smaller particle size than V430 Green Pearl.



**Blue Pearl**

**V433**

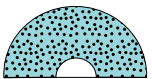
Used in addition to or substitute for metallic. Gives a blue face and flop.



**Blue Silver Pearl**

**V434**

Used in addition to or substitute for metallic. Gives a blue gray face and flop.



**Blue Green Pearl**

**V435**

Used in addition to or substitute for metallic. Medium particle size with a blue green face and a yellow green flop.

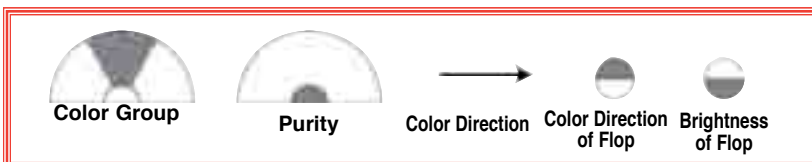


**Fine Blue Pearl**

**V436**

Used in addition to or substitute for metallic. Gives a blue face and flop. Smaller particle size than V433 Blue Pearl

\*In order to insure accurate color match, it is imperative that all paste pearls are strongly shaken for a minimum of 5 seconds before reduction and application. This shaking will insure that the pearl and xirrallic pigments are properly mixed before adding to formula, guaranteeing more consistent color accuracy.



# VORTEX®

the premier waterborne solution™

## Tinting Guide

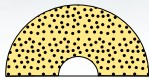
### PEARLS



Copper Pearl

V437

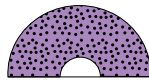
Used in addition to or substitute for metallic. Gives a copper (red brown) face and flop.



Gold Pearl

V440

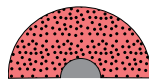
Used in addition to or substitute for metallic. Gives a gold-yellow face, with little effect on the flop.



Lilac Pearl

V441

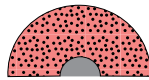
Used in addition to or substitute for metallic. Gives a red face to blue colors with little effect on the flop.



Red Violet Pearl

V442

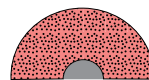
Used in addition to or substitute for metallic. Red blue face and side tone (flop).



Red Pearl

V443

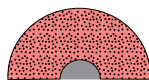
Used in addition to or substitute for metallic. Red yellow face and flop.



Red Brown Pearl

V444

Used in addition to or substitute for metallic. Red yellow face and side tone (flop). Smaller particle size than V442 Russet Mica.

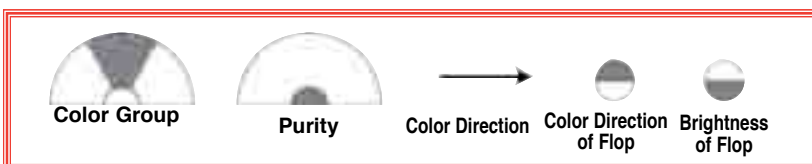


Small Red Pearl

V445

Used in addition to or substitute for metallic. Red yellow face and flop. Smaller particle size than V443 Red Pearl.

\*In order to insure accurate color match, it is imperative that all paste pearls are strongly shaken for a minimum of 5 seconds before reduction and application. This shaking will insure that the pearl and xirrallic pigments are properly mixed before adding to formula, guaranteeing more consistent color accuracy.

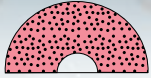


# VORTEX®

the premier waterborne solution™

## Tinting Guide

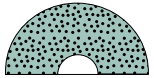
### PEARLS



**Light Red Pearl**

**V446**

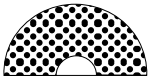
Used in addition to or substitute for metallic. Clean red blue face with little or no effect on the flop.



**Scarab Red Pearl**

**V447**

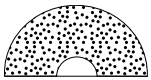
Used in addition to or substitute for metallic. Gives a green face with a red brown flop.



**White Pearl**

**V448**

Clean white pearl used to match pearlescent and pearl midcoat colors.



**Small White Pearl**

**V449**

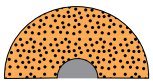
Used in addition to or substitute for metallic. Smaller particle size and lighter flop than V448 White Pearl. Will lighten a dark flop without drastically changing the face.



**Fine White Pearl**

**V450**

Used in addition to or substitute for metallic. Our smallest white mica with a lighter flop than V449 Small White Pearl. Will lighten a dark flop without drastically changing the face.

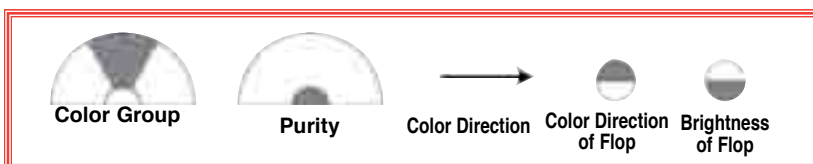


**Bronze Gold Pearl**

**V451**

Used in addition to or substitute for metallic. Yellow face and flop.

\*In order to insure accurate color match, it is imperative that all paste pearls are strongly shaken for a minimum of 5 seconds before reduction and application. This shaking will insure that the pearl and xirrallic pigments are properly mixed before adding to formula, guaranteeing more consistent color accuracy.

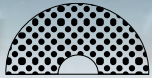


# VORTEX®

the premier waterborne solution™

# Tinting Guide

## PEARLS



**Crystal Silver Pearl**

**V460**

Synthetic pearlescent crystal. Smaller particle size than traditional pearl with much larger sparkle. Cleaner / less yellow flop than traditional pearl. Tints similar to V449 Small White Pearl.



**Sunbeam Gold Pearl**

**V462**

Synthetic pearlescent crystal. Smaller particle size than traditional pearl with much larger sparkle. Cleaner / less yellow flop than traditional pearl. Tints similar to V440 Gold Pearl.



**Radiant Red Pearl**

**V463**

Synthetic pearlescent crystal. Smaller particle size than traditional pearl with much larger sparkle. Cleaner / less yellow flop than traditional pearl. Tints similar to V443 Russet Pearl.



**Galaxy Blue Pearl**

**V464**

Synthetic pearlescent crystal. Smaller particle size Mica Pearl Tone than traditional pearl with much larger sparkle. Cleaner / less yellow flop than traditional pearl. Tints similar to V433 Blue Pearl.

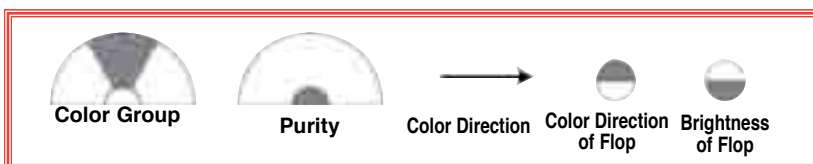


**Stellar Green Pearl**

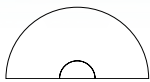
**V465**

Synthetic pearlescent crystal. Smaller particle size Mica Pearl Tone than traditional pearl with much larger sparkle. Cleaner / less yellow flop than traditional pearl. Tints similar to V430 Green Pearl.

\*In order to insure accurate color match, it is imperative that all paste pearls are strongly shaken for a minimum of 5 seconds before reduction and application. This shaking will insure that the pearl and xirallc pigments are properly mixed before adding to formula, guaranteeing more consistent color accuracy.



## SPECIALTY TONERS



Effect Additive

V271

10% or less can be used to lighten the flop of a metallic basecoat color and create the appearance of a larger metallic sparkle while having little effect on the face of the color. These effects are more subtle than using white or white mica.

Balancing Clear

V300

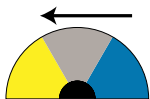
Basecoat balancing clear. Also used in 3-stage mid-coat colors.



Effect Black

V313

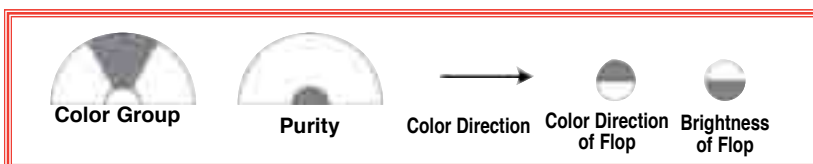
Used in addition to metallic and mica providing a soft antique metallic effect. In strong sunlight the flop appears smoky brown.



Trans White

V391

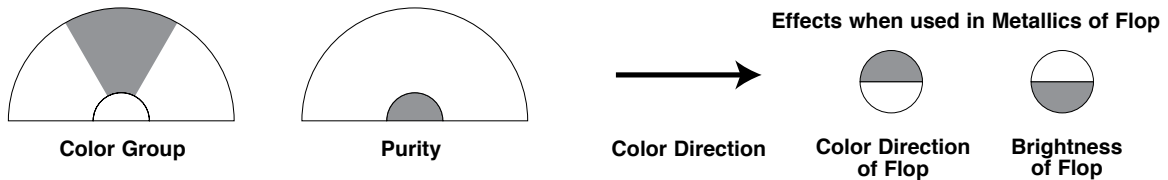
Used in addition to metallic or mica producing a unique frosted glaze appearance with a yellow glow on the face and a blue flop.



## USING THE VORTEX™ COLORANT PICTOGRAPHS

The characteristics of color are consistent throughout the world, therefore the VORTEX™ toner pictographs are designed to provide paint/color technicians a visual explanation of the characteristics of each colorant, independent of the technicians language or geographical location. Just as with a printed description of color characteristics, a basic knowledge of color theory is necessary to effectively utilize this tool.

The pictograph shows each colorant's characteristics of hue, value, and chroma from both Face and Flop as follows:



### Example: Characteristics of V343 HS Red Shade Blue.

		<b>HS Red Shade Blue</b>	<b>V343</b>	<b>Red face and red flop PC blue. Used to tint solid, metallic, and pearl colors.</b>
--	--	--------------------------	-------------	---

#### 1) Color Group is the Basic Color.

In the example given above, the "Color Group" is "Blue". Colorant groups are Blue, Violet, Magenta, Maroon, Red, Orange, Yellow, Gold, Green, White, Black, Metallic, Mica, and Specialty.

#### 2) Purity.

Indicates how "Clean" or "Dirty / Gray" the colorant appears when viewed from the "Face". The white icon indicates that V343 is a "clean" or "pure" blue. In simplest terms, "Pure" or "Clean" indicates an absence of Grayness; the term "Dirty" indicates the presence of Grayness.

#### 3) The arrow.

Indicates "Color Direction" or "Cast" of the colorant as viewed from the "Face" or "Head On". Each colorant group can vary in only two directions and are indicated to the right and left of the "Color Group" icon. The arrow indicates that V343 is a "Red Shade" Blue.

#### 4) Color direction of Flop.

The "Red" icon indicates that when used in a metallic color, this blue appears "red" or "purple" when viewed from an angle.

#### 5) Brightness of Flop.

The "gray" icon indicates that when used in a metallic color, this blue has a slightly "dark" appearance when viewed from an angle.