



ADVANCED DISPERSIONS COLOR SELECTION CHART

EXPLANATION OF SPECTROPHOTOMETRIC DATA

PolyOne certifies our colorants based on CIELAB spectrophotometric color difference data for each lot of product.

The spectrophotometer is coupled with a computer, which allows colors to be measured under controlled conditions, and compared to an established standard, resulting in a numerical

expression defining the relationship of the batch to the standard. While there is a variety of color difference formulations in use, the CIELAB is most commonly used in the plastics and polymer industry because it offers relatively good visual correlation over a wide range of color space.

SPECTROPHOTOMETER CONFIGURATION FOR COA

Type: Datacolor

Illuminate: D65 Daylight

Observer: 10 degree, large area view, specular included

EXPLANATION OF SPECTROPHOTOMETRIC VALUES

- DL* Lightness/Darkness Difference (Delta L*)
The shade of gray (black/white)
+ = Lighter
- = Darker
- Da* Red/Green Color Difference (Delta a*)
+ = Hue is redder (or less green than)
- = Hue is greener (or less red than)
- Db* Yellow/Blue Color Difference (Delta b*)
+ = Hue is yellower (or less blue than)
- = Hue is bluer (or less yellow than)
- DC* Difference Attributed to Chromaticity (Delta C*)
+ = More saturated than (more color intensity)
- = Less saturated than (less color intensity)
- DH* Difference Due to Hue Only (Delta H*)
- DE* Total Color Difference (Delta E*)

DE is a mathematical calculation utilizing the DL*, Da* and Db*, and therefore, used alone this number can be misleading as to the true color of a material. We recommend that our customers visually determine if the color of the product is acceptable.

USING THIS CHART

This color selection chart is a tool to assist in selecting the proper colorants for specific applications.

- C.I. numbers refer to the Color Index, the industry's standard guide.
- In each pair of color chips, the left sample represents the masstone or full shade, which is the color hue in clear media.
- The chip on the right shows the relative tint strength using 10 parts TiO₂.

This chart represents a small fraction of the colors available. Those depicted may not be an exact match for your requirements, but when PolyOne color experts learn how a color will be used and what materials are involved, they can suggest an appropriate pigment for your specific applications.



KEY

RS = Red Shade

YS = Yellow Shade

VYS = Very Yellow Shade

BS = Blue Shade








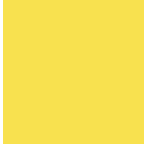




















VBS = Very Blue Shade

GS = Green Shade

VGS = Very Green Shade

Tints = 10 Parts TiO₂ : 1 Part Pigment

Due to printing limitations, PolyOne makes no claims as to the exactness of hue and tint of color depicted on this chart. To ensure color accuracy, please contact a PolyOne representative for a sample.

Masstone	Tint			
		DIARYLIDE HR RS C.I. PY 83 Transparent		 DIARYLIDE AAOT GS C.I. PY 14 Semi-Transparent
		ISOINDOLINONE RS C.I. PY 110 Semi-Transparent		 DIARYLIDE AAMX RS C.I. PY 13 Semi-Transparent
		DISAZO GS C.I. PY 93 Transparent		 IRON OXIDE RS C.I. PY 42 Opaque
		BENZIMIDAZOLONE GS C.I. PY 151 Semi-Transparent		 DIARYLIDE AAOA GS C.I. PY 17 Transparent
		CERAMIC RS C.I. PY 24 Opaque		 DIARYLIDE AAA RS C.I. PY 12 Semi-Transparent
		ISOINDOLINONE GS C.I. PY 109 Semi-Transparent		 BENZIMIDAZOLONE GS C.I. PY 180 Semi-Transparent
		QUINAPHTHALONE GS C.I. PY 138 Semi-Transparent		 AZO CONDENSATION RS C.I. PY 95 Semi-Transparent

Masstone**Tint**

PERYLENE
YS
C.I. PR 149
Transparent



QUINACRIDONE
BS
C.I. PV 19
Transparent



QUINACRIDONE
YS
C.I. PV 19
Semi-Transparent



NAPTHOL
BS
C.I. PR 170
Opaque



NAPTHOL
YS
C.I. PR 170
Opaque



DPP
YS
C.I. PR 254
Opaque



RED LAKE C
YS
C.I. PR 53:1
Semi-Transparent



LITHOL RUBINE
BS
C.I. PR 57:1
Transparent



RED 2B CA SALT
BS
C.I. PR 48:2
Semi-Transparent



PYRAZOLONE
YS
C.I. PR 38
Semi-Transparent



PIGMENT SCARLETT
BS
C.I. PR 60:1
Semi-Transparent



RED 2B BA SALT
YS
C.I. PR 48:1
Semi-Transparent



IRON OXIDE
BS
C.I. PR 101
Opaque



IRON OXIDE
VBS
C.I. PR 101
Opaque



IRON OXIDE
VYS
C.I. PR 101
Opaque



IRON OXIDE
YS
PR 101
Opaque



BENZIMIDAZOLONE
RS
C.I. PO 36
Opaque



MONOAZO
YS
C.I. PO 64
Semi-Transparent



DIARYLIDE
YS
C.I. PO 13
Opaque



DIANISIDINE
RS
C.I. PO16
Opaque



IRON OXIDE
YS
C.I. PBr 6
Opaque



IRON OXIDE
BS
C.I. PBr 6
Opaque



IRON OXIDE
YS
C.I. PBr 11
Opaque

Masstone**Tint****ULTRAMARINE**

RS
C.I. PB 29
Transparent

**PHthalOCYANINE**

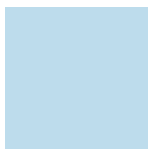
RS
C.I. PB 15
Transparent

**PHthalOCYANINE**

GS
C.I. PB 15:3
Transparent

**PHthalOCYANINE**

RS
C.I. PB 15:1
Transparent

**COBALT**

RS
C.I. PB 28
Opaque

**PHthalOCYANINE**

VYS
C.I. PG 36
Transparent

**PHthalOCYANINE**

YS
C.I. PG 7
Transparent

**PHthalOCYANINE**

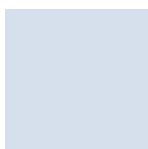
BS
C.I. PG 7
Transparent

**CHROME OXIDE**

YS
C.I. PG 17
Opaque

**COBALT**

YS
C.I. PG 50
Opaque

**ULTRAMARINE**

RS
C.I. PV 15
Transparent

**QUINACRIDONE**

RS
C.I. PV 19
Transparent

**QUINACRIDONE**

RS
C.I. PR 122
Semi-Transparent

**BENZIMIDAZOLONE**

RS
C.I. PV 32
Opaque

**CARBAZOLE**

BS
C.I. PV 23
Transparent

**QUINACRIDONE**

RS
C.I. PR 202
Semi-Transparent

**TITANIUM DIOXIDE**

C.I. PW 6
Opaque

**CARBON BLACK**

Medium Jet
C.I. PBk 7
Opaque

**IRON OXIDE BLACK**

C.I. PBk 11
Opaque

**SPINEL BLACK**

BS
C.I. PBk 26
Opaque

**SPINEL BLACK**

GS
C.I. PBk 28
Opaque

**SPINEL BLACK**

RS
C.I. PBk 33
Opaque



www.polyone.com

PolyOne[™]

Copyright © 2019, PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the information or products reflected by the information. This literature shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.