

# Converting Colors

XYZ(12.4650, 9.0042, 40.8182)

Have a look what the booklet for  
XYZ(12.4650, 9.0042, 40.8182)  
contains.

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# Color

**XYZ(12.3860, 8.9540,  
40.6106)**

# Conversions

## Conversions Part 1

<b>Format</b>	<b>Color</b>
Hex	4648AD
RGB	70, 72, 173
RGB Percent	27%, 28%, 68%
CMY	0.7255, 0.7176, 0.3216
CMYK	0.60, 0.58, 0.00, 0.32
HSL	239°, 42%, 48%
HSV	239°, 60%, 68%
XYZ	12.3860, 8.9540, 40.6106
YIQ	82.9160, -33.6130, 30.9870

# Conversions

## Conversions Part 2

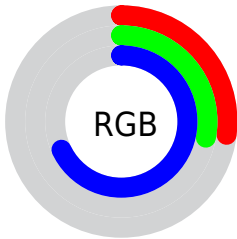
<b>Format</b>	<b>Color</b>
R <sub>Y</sub> B	70, 72, 173
Decimal	4606125
CIE Lab	35.90, 29.81, -54.49
CIE LCh	36, 62.109, 298.679
Yxy	8.9540, 0.1999, 0.1445
Android (android.graphics.Color)	4282796205 (0xFF4648AD)
YUV	82.9160, 44.4114, -11.3273
Hunter-Lab	29.9232, 21.5201, -59.5197

# Details

The XYZ color **12.3860, 8.9540, 40.6106** is a dark color, and the websafe version is hex **333399**. A complement of this color would be **32.9032, 38.4542, 11.4835**, and the grayscale version is **8.1230, 8.5460, 9.3066**.

A 20% lighter version of the original color is **29.8823, 23.9211, 77.1710**, and **3.8054, 2.1866, 17.9908** is the 20% darker color. If you saturate the color by 10%, you get **10.3635, 6.5018, 40.2441**, and if you desaturate by 10%, it is **15.0714, 12.1971, 41.0953**.

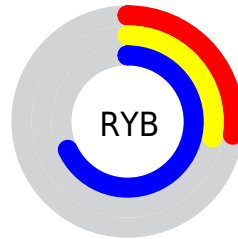
# Distribution



Red (27%)

Green (28%)

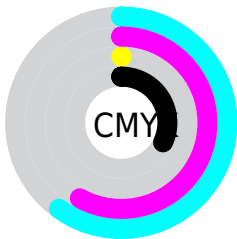
Blue (68%)



Red (27%)

Yellow (28%)

Blue (68%)

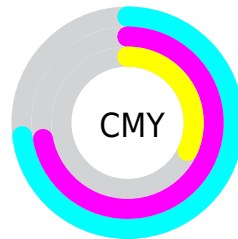


Cyan (60%)

Magenta (58%)

Yellow (0%)

Black (32%)



Cyan (73%)

Magenta (72%)

Yellow (32%)

# Brightness & Saturation Gradients

These gradients show how the XYZ color 12.3860, 8.9540, 40.6106 changes by changing the brightness by 10 percent. The first figure shows a shift by +10% for each color and the second figure -10%.

Similar to the brightness gradients but the following saturation gradients show a change of the XYZ color 12.3860, 8.9540, 40.6106 by changing the saturation by 10% instead.



■ 12.3860, 8.9540,  
40.6106

■ 12.3860, 8.9540,  
40.6106

200.6624,  
183.0344, 364.3188

■ 7.0812, 4.7112,  
27.6975

■ 29.8070, 23.8085,  
77.3397

■ 3.5597, 2.0788,  
17.8607

■ 42.6539, 35.1890,  
101.9927

■ 1.4562, 0.6527,  
10.6816

■ 58.7455, 49.7176,  
131.3962

■ 0.2957, 0.0000,  
5.7417

■ 78.4473, 67.7785,  
165.9687

■ 0.0000, 0.0000,  
2.6224

■ 102.1245, 89.7563,  
206.1286

■ 0.0000, 0.0000,  
0.9040

130.1425,

■ 0.0000, 0.0000,

116.0352, 252.2946

0.0000

162.8667,  
146.9998, 304.8851

■ 12.3860, 8.9540,  
40.6106

■ 12.3860, 8.9540,  
40.6106

■ 10.3635, 6.5018,  
40.2441

■ 15.0714, 12.1971,  
41.0953

■ 8.9452, 4.7724,  
39.9850

■ 18.4692, 16.2903,  
41.7062

■ 8.0644, 3.6870,  
39.8220

■ 22.6255, 21.2878,  
42.4518

■ 7.5979, 3.1122,  
39.7356

■ 27.5823, 27.2391,  
43.3393

■ 7.5792, 3.0899,  
39.7323

■ 33.3786, 34.1904,  
44.3755

■ 40.0506, 42.1845,  
45.5669

■ 47.6326, 51.2619,  
46.9194

■ 56.1571, 61.4611,  
48.4387

■ 65.6547, 72.8184,  
50.1303

# Harmonies

## Analogous

The Analogous color harmony consists of three colors that are next to each other on the color wheel.



8.3481, 8.9540, 47.3903



12.3860, 8.9540, 40.6106



16.1165, 8.9540, 24.5697

# Triad

The Triadic color harmony groups three colors that are evenly spaced from another and form a triangle on the color wheel.



12.3860, 8.9540, 40.6106



12.7531, 8.9540, 0.6174



3.2086, 8.9540, 9.2887

# Complementary

The Complementary color scheme is a pair of colors which are on the opposite of each other on the color wheel.



12.3860, 8.9540, 40.6106



32.9032, 38.4542, 11.4835

# Split Complementary

Split-complementary colors differ from the complementary color scheme. The scheme consists of three colors, the original color and two neighbors of the complement color.



3.7774, 8.9540, 2.5457



12.3860, 8.9540, 40.6106



8.6750, 8.9540, 0.0000

# Square

The Square scheme is like the rectangle color scheme, but the four colors are evenly spaced on the color wheel.



12.3860, 8.9540, 40.6106



16.3680, 8.9540, 2.8915



5.5417, 8.9540, 0.5173



3.6831, 8.9540, 23.0986



# Rectangle

The Rectangle color scheme consists of four colors that form a rectangle on the color wheel.



12.3860, 8.9540, 40.6106



17.5259, 8.9540, 14.3027



5.5417, 8.9540, 0.5173



3.2801, 8.9540, 6.2823

# Sweetspot

The Sweet Spot groups the original color and five complimentary colors.



12.3864, 8.9543, 40.6108



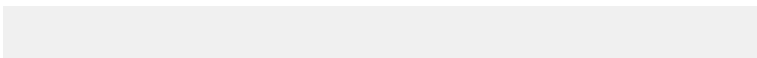
50.5831, 50.2052, 77.8303



24.6846, 34.0755, 43.0921



10.4039, 10.2040, 16.8089



82.5889, 86.8899, 94.6231



15.4596, 16.2647, 17.7123



# Same Dimension

The Same Dimension uses a secret algorithm to generate beautiful new colors.



12.3864, 8.9543, 40.6108



17.7709, 10.6839, 71.9313



17.2140, 11.2546, 40.8004



7.5909, 7.7811, 10.0545



5.5730, 2.2798, 29.1908



0.1590, 0.0713, 0.8134



# Inverse Universe

The Inverse Universe completely reimagines the original color for something new.



20.5939, 13.7331, 7.6964



33.8076, 20.1200, 7.5966



24.4974, 34.6847, 11.1989



8.0113, 8.0178, 8.3703



12.6766, 6.5332, 0.6766

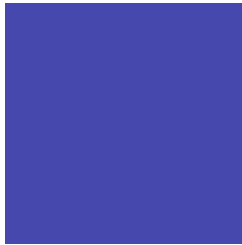


0.3546, 0.1825, 0.0293



# Previews

## White Background



This preview shows how the XYZ color 12.3860, 8.9540, 40.6106 looks on a white background.

## Color Contrast Check

Large Text (above 18pt) WCAG AA ✓ Pass

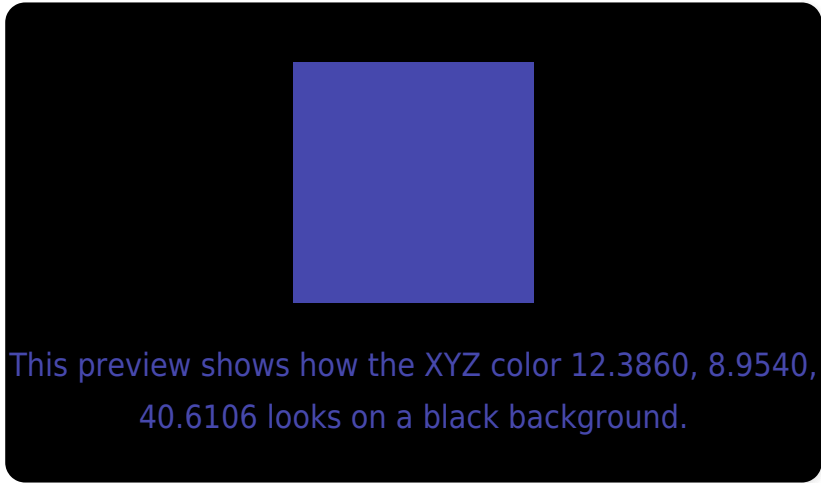
Any Text WCAG AA ✓ Pass

Large Text (above 18pt) WCAG AAA ✓ Pass

Any Text WCAG AAA ✓ Pass



# Black Background



## Color Contrast Check

Large Text (above 18pt) WCAG AA × Fail

Any Text WCAG AA × Fail

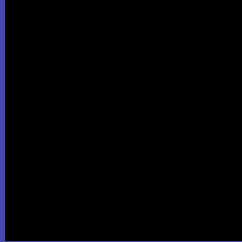
Large Text (above 18pt) WCAG AAA × Fail

Any Text WCAG AAA × Fail

If you want to check with other color combinations, try the [Color Contrast Checker](#).

**XYZ 12.3860, 8.9540, 40.6106**

## **Background**



This preview shows how black text looks on a background with the XYZ color 12.3860, 8.9540, 40.6106.



This preview shows how white text looks on a background with the XYZ color 12.3860, 8.9540,



# Color Blindness Simulation

Color vision deficiency is a very complex topic, and I could not describe the different causes any better than Wikipedia does, so if you want to learn more, you should check out their [article about color blindness](#).

## Dichromacy



### Original Color

12.3860, 8.9540, 40.6106

### Protanopia

10.3888, 8.8634, 40.1930

### Deuteranopia

8.7526, 8.8255, 29.6760



## Tritanopia

6.8422, 8.9485, 13.1710

# Trichromacy



## Original Color

12.3860, 8.9540, 40.6106

## Protanomaly

10.5717, 8.6340, 40.1391

## Deuteranomaly

9.5149, 8.5602, 33.4985

## Tritanomaly

8.2810, 8.6563, 20.9730

# Monochromacy



## Original Color

12.3860, 8.9540, 40.6106

## Achromatopsia

8.2219, 8.6500, 9.4199

## Achromatomaly

9.0903, 8.4726, 17.6793

# CSS Examples

## Text

The CSS property to change the color of the text to XYZ 12.3860, 8.9540, 40.6106 is called "color". The color property can be set on classes, ids or directly on the HTML element.

This example shows how text in the color `rgb(70, 72, 173)` looks like.

```
.text, #text, p{  
    color:rgb(70, 72, 173)  
}
```

If you want to add a text shadow in that color use the text-shadow property, you can generate a text shadow directly with our [CSS Text Shadow Generator](#).

Here you see how black text with a 4 pixel rgb(70, 72, 173) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(70, 72, 173) }
```

## Border

The CSS property to change the border of an element to XYZ 12.3860, 8.9540, 40.6106 is called "border". The border property can be set on classes, ids or directly on the HTML element.

This example shows the color as border, it can be applied via the CSS property "border" or "border-color".

```
.border, #border, table{ border:4px solid rgb(70, 72, 173) }
```



If only the border color should be changed use the property `border-color`.

```
.border{ border-color:rgb(70, 72, 173) }
```

If you want to add a box shadow in that color use:

Here you see how a box with a 4 pixel `rgb(70, 72, 173)` colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(70, 72, 173); -webkit-box-  
shadow:4px 4px 4px 4px rgb(70, 72, 173);  
box-shadow:4px 4px 4px 4px rgb(70, 72,  
173) }
```

# Background

The CSS property to change the background color of an element to XYZ 12.3860, 8.9540, 40.6106 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(70, 72, 173) }
```

If only the background color should be changed can be used:

```
.background{ background-color: rgb(70, 72,  
173) }
```

This example shows the color as background, it is applied via the CSS property "background".

To optimize and compress your CSS code, you can use our [online CSS compressor and optimizer](#) based on csstidy. If you want to create a linear or radial gradient as background or border, check our [CSS Gradient Generator](#).

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