

# Converting Colors

CIELCh(45, 12.370, 309.775)

Have a look what the booklet for  
CIELCh(45, 12.370, 309.775)  
contains.

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# Color

**CIELCh(45, 12.063, 310.641)**

# Conversions

## Conversions Part 1

<b>Format</b>	<b>Color</b>
Hex	71677A
RGB	113, 103, 122
RGB Percent	44%, 40%, 48%
CMY	0.5579, 0.5971, 0.5226
CMYK	0.07, 0.16, 0.00, 0.52
HSL	272°, 8%, 44%
HSV	272°, 16%, 48%
XYZ	15.0979, 14.5417, 20.3378
YIQ	108.1560, -0.1390, 8.0290

# Conversions

## Conversions Part 2

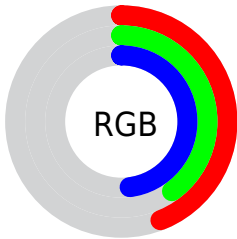
<b>Format</b>	<b>Color</b>
<b>R<sub>YB</sub></b>	113, 103, 122
Decimal	7432058
CIE Lab	45.00, 7.86, -9.15
CIE LCh	45, 12.063, 310.641
Yxy	14.5417, 0.3021, 0.2910
Android (android.graphics.Color)	4285622138 (0xFF71677A)
YUV	108.1560, 6.8251, 4.2482
Hunter-Lab	38.1336, 3.9381, -4.9276

# Details

The CIELCh color  $45, 12.063, 310.641$  is a dark color, and the websafe version is hex  $666666$ . A complement of this color would be  $50, 11.832, 129.328$ , and the grayscale version is  $46, 0.006, 296.813$ .

A 20% lighter version of the original color is  $65, 11.905, 311.276$ , and  $25, 11.901, 311.035$  is the 20% darker color. If you saturate the color by 10%, you get  $41, 20.037, 311.112$ , and if you desaturate by 10%, it is  $49, 4.275, 310.189$ .

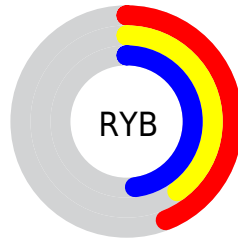
# Distribution



Red (44%)

Green (40%)

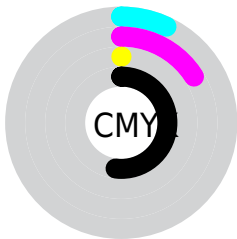
Blue (48%)



Red (44%)

Yellow (40%)

Blue (48%)

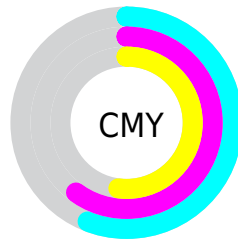


Cyan (7%)

Magenta (16%)

Yellow (0%)

Black (52%)



Cyan (56%)

Magenta (60%)


Yellow (52%)


# Brightness & Saturation Gradients


These gradients show how the CIELCh color 45, 12.063, 310.641 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 CIELCh color 45, 12.063, 310.641 by changing the saturation by 10% instead.





 45, 12.063,  
310.641


 45, 12.063,  
310.641


 100, 12.063,  
310.641


 35, 12.063,  
310.641

 65, 12.063,  
310.641


 25, 12.063,  
310.641

 75, 12.063,  
310.641

 15, 12.063,  
310.641


 85, 12.063,  
310.641

 5, 12.063, 310.641

 95, 12.063,  
310.641

 0, 12.063, 310.641

 45, 12.063,

 45, 12.063,

310.641

41, 20.037,  
311.112

37, 28.154,  
311.603

34, 36.326,  
312.097

30, 44.404,  
312.564

27, 52.148,  
312.956

23, 59.205,  
313.208

21, 65.112,  
313.232

19, 69.571,  
312.984

310.641

49, 4.275, 310.189

53, 3.300, 129.836

57, 10.657,  
129.455

61, 17.794,  
129.128

65, 24.719,  
128.839

68, 31.439,  
128.584

72, 37.965,  
128.361

76, 44.307,  
128.167

■ 18, 71.537,  
312.918

■ 80, 50.474,  
127.998

# Harmonies

# Complementary

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



45, 12.063, 310.641



50, 11.832, 129.328

# Rectangle

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



45, 12.063, 310.641



45, 12.063, 0.641



45, 12.063, 130.641



45, 12.063, 180.641

# Sweetspot

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



45, 12.062, 310.640



63, 4.725, 310.167



47, 6.724, 259.293



32, 3.208, 310.193



83, 0.010, 296.813



34, 0.005, 296.813





# Same Dimension

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



45, 12.062, 310.640



56, 18.284, 310.819



46, 13.483, 325.696



24, 4.338, 310.345



18, 72.908, 312.888



41, 123.382, 312.294



# Inverse Universe

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



46, 9.482, 346.373



57, 14.361, 346.738



49, 13.469, 143.977



24, 3.413, 345.776



26, 49.897, 2.862



54, 83.801, 5.491



# Previews

## White Background



This preview shows how the CIELCh color 45, 12.063, 310.641 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 × Fail

# Black Background



This preview shows how the CIELCh color 45, 12.063, 310.641 looks on a black background.

## Color Contrast Check

Large Text (above 18pt) WCAG AA ✓ Pass

Any Text WCAG AA × Fail

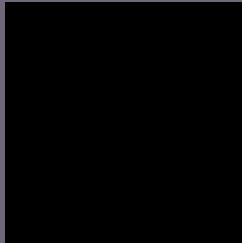
Large Text (above 18pt) WCAG AAA × Fail

Any Text WCAG AAA × Fail

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

# CIELCh 45, 12.063, 310.641

## Background



This preview shows how black text looks on a background with the CIELCh color 45, 12.063, 310.641.



This preview shows how white text looks on a background with the CIELCh color 45, 12.063, 310.641.

# 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

45, 12.063, 310.641


### Protanopia

45, 10.777, 285.597

### Deuteranopia

45, 11.045, 303.861





**Tritanopia**  
45, 6.106, 318.447

# Trichromacy



**Original Color**  
45, 12.063, 310.641

**Protanomaly**  
45, 10.793, 295.766

**Deuteranomaly**  
45, 11.137, 305.837

**Tritanomaly**  
45, 7.887, 315.063

# Monochromacy



**Original Color**  
45, 12.063, 310.641

**Achromatopsia**  
46, 0.006, 296.813

**Achromatomaly**  
45, 4.497, 311.749

# CSS Examples

## Text

The CSS property to change the color of the text to CIELCh 45, 12.063, 310.641 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(113, 103, 122)` looks like.

```
.text, #text, p{  
    color:rgb(113, 103, 122)  
}
```

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(113, 103, 122) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(113, 103, 122) }
```

## Border

The CSS property to change the border of an element to CIELCh 45, 12.063, 310.641 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(113, 103, 122) }
```

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

```
.border{ border-color:rgb(113, 103, 122) }
```

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

Here you see how a box with a 4 pixel `rgb(113, 103, 122)` colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(113, 103, 122); -webkit-box-  
shadow:4px 4px 4px 4px rgb(113, 103, 122);  
box-shadow:4px 4px 4px 4px rgb(113, 103,  
122) }
```

# Background

The CSS property to change the background color of an element to CIELCh 45, 12.063, 310.641 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(113, 103, 122) }
```

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

```
.background{ background-color: rgb(113,  
103, 122) }
```

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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