

# Converting Colors

CIELCh(49, 0.481, 11.200)

Have a look what the booklet for  
CIELCh(49, 0.481, 11.200) contains.

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# Color

**CIELCh(49, 0.405, 18.537)**

# Conversions

## Conversions Part 1

<b>Format</b>	<b>Color</b>
Hex	757474
RGB	117, 116, 116
RGB Percent	46%, 45%, 45%
CMY	0.5404, 0.5444, 0.5444
CMYK	0.00, 0.01, 0.01, 0.54
HSL	0°, 0%, 46%
HSV	0°, 1%, 46%
XYZ	16.7915, 17.5941, 19.0910
YIQ	116.2990, 0.5960, 0.2120

# Conversions

## Conversions Part 2

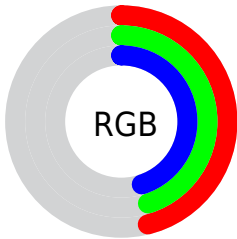
<b>Format</b>	<b>Color</b>
<b>R<sub>YB</sub></b>	117, 116, 116
Decimal	7697524
CIE <sub>Lab</sub>	49.00, 0.38, 0.13
CIE <sub>LCh</sub>	49, 0.405, 18.537
Yxy	17.5941, 0.3140, 0.3290
Android (android.graphics.Color)	4285887604 (0xFF757474)
YUV	116.2990, -0.1474, 0.6148
Hunter-Lab	41.9453, -1.9473, 2.3764

# Details

The CIELCh color  $49, 0.405, 18.537$  is a dark color, and the websafe version is hex  $666666$ . A complement of this color would be  $49, 0.400, 200.468$ , and the grayscale version is  $49, 0.007, 296.813$ .

A 20% lighter version of the original color is  $69, 0.379, 18.159$ , and  $29, 0.444, 18.902$  is the 20% darker color. If you saturate the color by 10%, you get  $45, 5.325, 20.170$ , and if you desaturate by 10%, it is  $53, 4.162, 199.242$ .

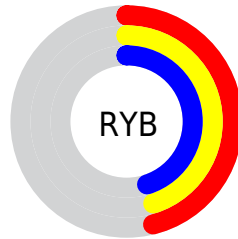
# Distribution



Red (46%)

Green (45%)

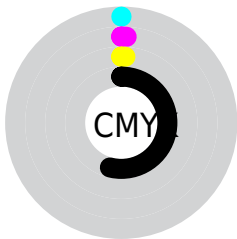
Blue (45%)



Red (46%)

Yellow (45%)

Blue (45%)



Cyan (0%)

Magenta (1%)

Yellow (1%)

Black (54%)



Cyan (54%)

Magenta (54%)













Yellow (54%)

# Brightness & Saturation Gradients

These gradients show how the CIELCh color 49, 0.405, 18.537 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 49, 0.405, 18.537 by changing the saturation by 10% instead.



 49, 0.405, 18.537	 49, 0.405, 18.537
 100, 0.405, 18.537	 39, 0.405, 18.537
 69, 0.405, 18.537	 29, 0.405, 18.537
 79, 0.405, 18.537	 19, 0.405, 18.537
 89, 0.405, 18.537	 9, 0.405, 18.537
 99, 0.405, 18.537	 0, 0.405, 18.537

 49, 0.405, 18.537	 49, 0.405, 18.537
 45, 5.325, 20.170	 53, 4.162, 199.242
 42, 10.623, 20.979	 56, 8.404, 198.812
 38, 16.300, 21.987	 60, 12.354,

35, 22.333, 23.279	198.489
32, 28.653, 24.946	64, 16.045, 198.230
29, 35.140, 27.084	68, 19.508, 198.019
27, 41.617, 29.764	71, 22.771, 197.844
25, 47.843, 32.950	75, 25.859, 197.700
24, 53.160, 35.952	79, 28.792, 197.578
	82, 31.589, 197.475

# Harmonies

# Complementary

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



49, 0.405, 18.537



49, 0.400, 200.468

# Rectangle

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



49, 0.405, 18.537



49, 0.405, 68.537



49, 0.405, 198.537



49, 0.405, 248.537

# Sweetspot

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



49, 0.404, 18.709



63, 0.008, 296.813



49, 0.722, 324.245



33, 0.005, 296.813



82, 0.010, 296.813

# Same Dimension

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



49, 0.404, 18.709



63, 0.589, 18.873



49, 0.349, 74.610



25, 0.267, 18.763



24, 59.012, 38.033



52, 102.961, 40.015





# Inverse Universe

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



49, 0.400, 200.468



63, 0.584, 200.303



49, 0.358, 256.210



25, 0.264, 200.414



46, 29.025, 196.699



89, 49.201, 196.716



# Previews

## White Background



This preview shows how the CIELCh color 49, 0.405, 18.537 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 49, 0.405, 18.537 looks on a black background.

## Color Contrast Check

Large Text (above 18pt) WCAG AA ✓ Pass

Any Text WCAG AA ✓ Pass

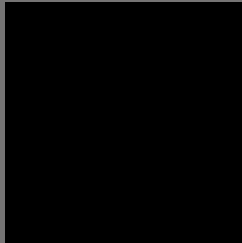
Large Text (above 18pt) WCAG AAA ✓ Pass

Any Text WCAG AAA × Fail

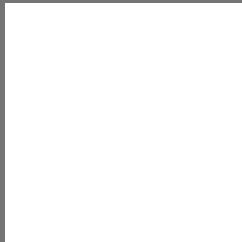
If you want to check with other color combinations, try the [Color Contrast Checker](#).

**CIELCh 49, 0.405, 18.537**

## **Background**



This preview shows how black text looks on a background with the CIELCh color 49, 0.405, 18.537.



This preview shows how white text looks on a background with the CIELCh color 49, 0.405, 18.537.

# 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

49, 0.405, 18.537

### Protanopia

49, 0.810, 19.041

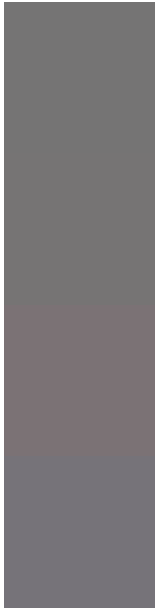
### Deuteranopia

49, 6.195, 357.919



**Tritanopia**  
49, 5.441, 303.424

# Trichromacy



## Original Color

49, 0.405, 18.537

## Protanomaly

49, 0.810, 19.041

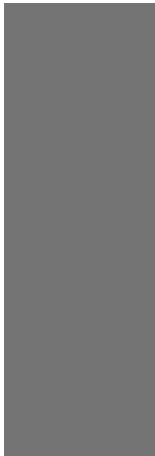
## Deuteranomaly

49, 4.076, 354.262

## Tritanomaly

49, 3.743, 309.254

# Monochromacy



## Original Color

49, 0.405, 18.537

## Achromatopsia

49, 0.007, 296.813

## Achromatomaly

49, 0.007, 296.813



# CSS Examples

## Text

The CSS property to change the color of the text to CIELCh 49, 0.405, 18.537 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(117, 116, 116)` looks like.

```
.text, #text, p{  
    color:rgb(117, 116, 116)  
}
```

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(117, 116, 116) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(117, 116, 116) }
```

## Border

The CSS property to change the border of an element to CIELCh 49, 0.405, 18.537 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(117, 116, 116) }
```

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

```
.border{ border-color:rgb(117, 116, 116) }
```

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

Here you see how a box with a 4 pixel `rgb(117, 116, 116)` colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(117, 116, 116); -webkit-box-  
shadow:4px 4px 4px 4px rgb(117, 116, 116);  
box-shadow:4px 4px 4px 4px rgb(117, 116,  
116) }
```

# Background

The CSS property to change the background color of an element to CIELCh 49, 0.405, 18.537 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(117, 116, 116) }
```

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

```
.background{ background-color: rgb(117,  
116, 116) }
```

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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