

# Converting Colors

CIELCh(19, 2.384, 12.231)

Have a look what the booklet for  
CIELCh(19, 2.384, 12.231) contains.

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# Color

**CIELCh(19, 2.402, 19.842)**

# Conversions

## Conversions Part 1

Format	Color
Hex	322D2D
RGB	50, 45, 45
RGB Percent	20%, 18%, 18%
CMY	0.8038, 0.8234, 0.8234
CMYK	0.00, 0.10, 0.10, 0.80
HSL	0°, 5%, 19%
HSV	0°, 10%, 20%
XYZ	2.7298, 2.7468, 2.8712
YIQ	46.4950, 2.9800, 1.0600

# Conversions

## Conversions Part 2

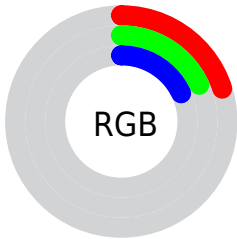
Format	Color
R <sub>Y</sub> B	50, 45, 45
Decimal	3288365
CIE Lab	19.00, 2.26, 0.82
CIE LCh	19, 2.402, 19.842
Yxy	2.7468, 0.3270, 0.3290
Android (android.graphics.Color)	4281478445 (0xFF322D2D)
YUV	46.4950, -0.7370, 3.0739
Hunter-Lab	16.5735, 0.3972, 1.3300

# Details

The CIELCh color **19, 2.402, 19.842** is a dark color, and the websafe version is hex **333333**. A complement of this color would be **20, 2.279, 199.061**, and the grayscale version is **19, 0.004, 296.813**.

A 20% lighter version of the original color is **39, 2.127, 19.547**, and **0, 0.000, 0.000** is the 20% darker color. If you saturate the color by 10%, you get **17, 4.965, 20.542**, and if you desaturate by 10%, it is **21, 0.004, 277.024**.

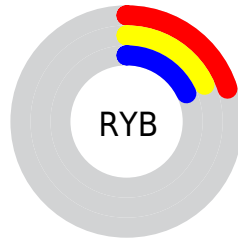
# Distribution



Red (20%)

Green (18%)

Blue (18%)



Red (20%)

Yellow (18%)

Blue (18%)

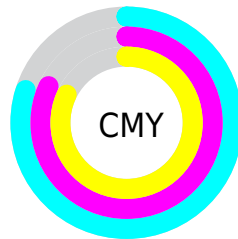


Cyan (0%)

Magenta (10%)

Yellow (10%)

Black (80%)



Cyan (80%)

Magenta (82%)

Yellow (82%)

# Brightness & Saturation Gradients

These gradients show how the CIELCh color 19, 2.402, 19.842 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 19, 2.402, 19.842 by changing the saturation by 10% instead.



■ 19, 2.402, 19.842      ■ 19, 2.402, 19.842

■ 100, 2.402, 19.842      ■ 9, 2.402, 19.842

■ 39, 2.402, 19.842      ■ 0, 2.402, 19.842

■ 49, 2.402, 19.842

■ 59, 2.402, 19.842

■ 69, 2.402, 19.842

■ 79, 2.402, 19.842

■ 89, 2.402, 19.842

■ 99, 2.402, 19.842

■ 19, 2.402, 19.842      ■ 19, 2.402, 19.842

17, 4.965, 20.542	21, 0.004, 277.024
16, 7.692, 21.350	23, 2.251, 199.100
14, 10.580, 22.346	24, 4.360, 198.707
12, 13.611, 23.589	26, 6.342, 198.404
11, 16.699, 24.743	28, 8.207, 198.156
9, 19.523, 24.470	30, 9.969, 197.949
8, 21.985, 23.489	32, 11.638, 197.775
7, 24.284, 22.339	34, 13.225, 197.627
6, 26.516, 21.438	35, 14.737, 197.500

# Harmonies

# Complementary

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



19, 2.402, 19.842



20, 2.279, 199.061

# Rectangle

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



19, 2.402, 19.842



19, 2.402, 69.842



19, 2.402, 199.842



19, 2.402, 249.842

# Sweetspot

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



19, 2.401, 19.859



27, 0.893, 19.300



19, 4.158, 324.873



12, 0.663, 19.355



66, 0.008, 296.813



13, 0.003, 296.813



# Same Dimension

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



19, 2.401, 19.859



25, 3.685, 20.036



20, 2.073, 74.342



8, 1.340, 19.540



16, 44.927, 34.021



45, 92.498, 40.002





# Inverse Universe

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



20, 2.279, 199.061



27, 3.447, 198.924



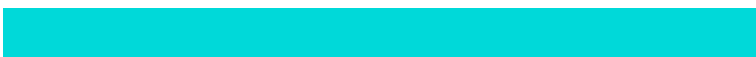
19, 2.035, 256.558



9, 1.285, 199.158



34, 23.292, 196.417



79, 44.315, 196.420



# Previews

## White Background



This preview shows how the CIELCh color 19, 2.402, 19.842 looks on a white background.

## Color Contrast Check

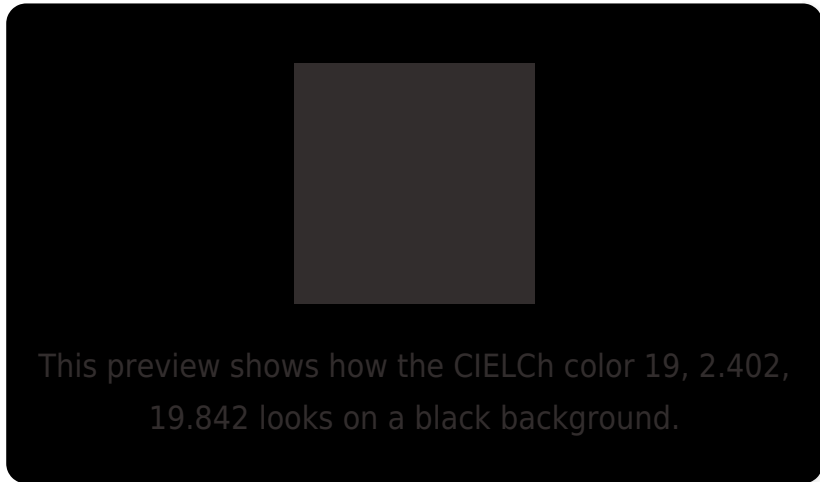
Large Text (above 18pt) WCAG AA ✓ Pass

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

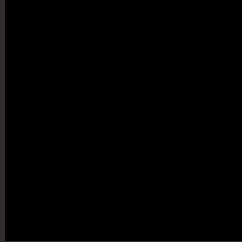
Large Text (above 18pt) WCAG AAA × Fail

Any Text WCAG AAA × Fail

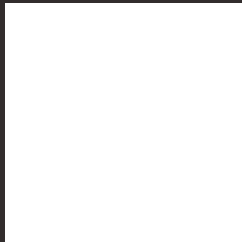
If you want to check with other color combinations, try the [Color Contrast Checker](#).

# CIELCh 19, 2.402, 19.842

## Background



This preview shows how black text looks on a background with the CIELCh color 19, 2.402, 19.842.

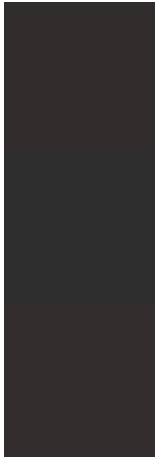


This preview shows how white text looks on a background with the CIELCh color 19, 2.402, 19.842.

# 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

19, 2.402, 19.842

### Protanopia

19, 0.473, 19.084

### Deuteranopia

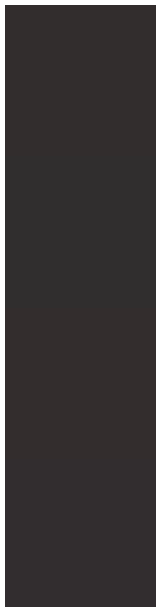
19, 2.891, 19.962



**Tritanopia**  
19, 3.138, 339.214



# Trichromacy



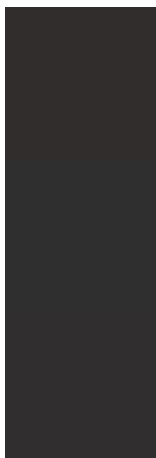
**Original Color**  
19, 2.402, 19.842

**Protanomaly**  
19, 0.949, 19.396

**Deuteranomaly**  
19, 2.891, 19.962

**Tritanomaly**  
19, 2.746, 350.105

# Monochromacy



**Original Color**  
19, 2.402, 19.842

**Achromatopsia**  
19, 0.004, 296.813

**Achromatomaly**  
19, 0.949, 19.396

# CSS Examples

## Text

The CSS property to change the color of the text to CIELCh 19, 2.402, 19.842 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(50, 45, 45)` looks like.

```
.text, #text, p{  
    color:rgb(50, 45, 45)  
}
```

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(50, 45, 45) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(50, 45, 45) }
```

## Border

The CSS property to change the border of an element to CIELCh 19, 2.402, 19.842 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(50, 45, 45) }
```

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

```
.border{ border-color:rgb(50, 45, 45) }
```

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

Here you see how a box with a 4 pixel `rgb(50, 45, 45)` colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(50, 45, 45); -webkit-box-  
shadow:4px 4px 4px 4px rgb(50, 45, 45);  
box-shadow:4px 4px 4px 4px rgb(50, 45, 45)  
}
```

# Background

The CSS property to change the background color of an element to CIELCh 19, 2.402, 19.842 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(50, 45, 45) }
```

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

```
.background{ background-color: rgb(50, 45,  
45) }
```

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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