

# Converting Colors

CIELCh(36, 86.500, 37.461)

Have a look what the booklet for  
CIELCh(36, 86.500, 37.461) contains.

<b>CIELCh(38, 81.836, 39.996)</b> .....	3
<i><b>Conversions</b></i> .....	4
<i><b>Details</b></i> .....	6
<i><b>Harmonies</b></i> .....	11
<i><b>Previews</b></i> .....	20
<i><b>Color Blindness Simulation</b></i> .....	23
<i><b>CSS Examples</b></i> .....	26

**Color**

**CIELCh(38, 81.836, 39.996)**

# Conversions

## Conversions Part 1

Format	Color
Hex	B70000
RGB	183, 0, 0
RGB Percent	72%, 0%, 0%
CMY	0.2807, 1.0000, 1.0000
CMYK	0.00, 1.00, 1.00, 0.28
HSL	0°, 100%, 36%
HSV	0°, 100%, 72%
XYZ	19.6106, 10.0881, 0.9032
YIQ	54.7170, 109.0680, 38.7960

# Conversions

## Conversions Part 2

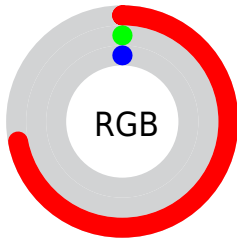
Format	Color
<b>RYB</b>	183, 0, 0
Decimal	11993088
CIELab	38.00, 62.69, 52.60
CIELCh	38, 81.836, 39.996
Yxy	10.0881, 0.6408, 0.3297
Android (android.graphics.Color)	4290183168 (0xFFB70000)
YUV	54.7170, -26.9755, 112.5042
Hunter-Lab	31.7617, 54.6281, 20.5472

# Details

The CIELCh color **38, 81.836, 39.996** is a dark color, and the websafe version is hex **CC0000**. A complement of this color would be **68, 39.128, 196.386**, and the grayscale version is **23, 0.004, 296.813**.

A 20% lighter version of the original color is **58, 81.475, 39.912**, and **23, 57.652, 37.721** is the 20% darker color. If you saturate the color by 10%, you get **38, 81.641, 39.994**, and if you desaturate by 10%, it is **39, 75.938, 37.158**.

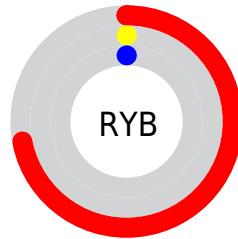
# Distribution



Red (72%)

Green (0%)

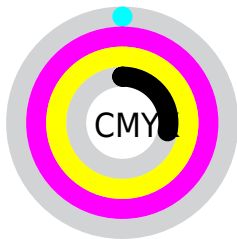
Blue (0%)



Red (72%)

Yellow (0%)

Blue (0%)

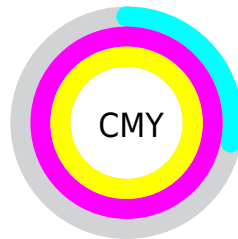


Cyan (0%)

Magenta (100%)

Yellow (100%)

Black (28%)



Cyan (28%)

Magenta (100%)

Yellow (100%)

# Brightness & Saturation Gradients


These gradients show how the CIELCh color 38, 81.836, 39.996 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 38, 81.836, 39.996 by changing the saturation by 10% instead.



 38, 81.836, 39.996

 38, 81.836, 39.996

 100, 81.836,  
39.996

 28, 81.836, 39.996

 58, 81.836, 39.996

 18, 81.836, 39.996

 68, 81.836, 39.996

 8, 81.836, 39.996

 78, 81.836, 39.996

 0, 81.836, 39.996

 88, 81.836, 39.996

 98, 81.836, 39.996

 38, 81.836, 39.996

 38, 81.836, 39.996

 38, 81.641, 39.994

 39, 75.938, 37.158

■ 40, 68.331, 33.688

■ 43, 59.506, 30.262

■ 46, 50.203, 27.353

■ 50, 40.829, 25.039

■ 54, 31.673, 23.248

■ 59, 22.933, 21.874

■ 64, 14.721, 20.813

■ 69, 7.079, 19.967

# Harmonies

# Complementary

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



38, 81.836, 39.996



68, 39.128, 196.386

# Rectangle

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



38, 81.836, 39.996



38, 81.836, 89.996



38, 81.836, 219.996



38, 81.836, 269.996

# Sweetspot

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



38, 81.641, 39.994



76, 28.558, 21.936



44, 90.229, 328.233



37, 19.768, 22.474



97, 0.011, 296.813



50, 0.007, 296.813



# Same Dimension

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



38, 81.641, 39.994



50, 99.790, 40.000



49, 66.546, 60.614



36, 4.004, 19.915



32, 71.870, 39.599



2, 10.638, 19.405





# Inverse Universe

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



68, 39.128, 196.386



86, 47.822, 196.386



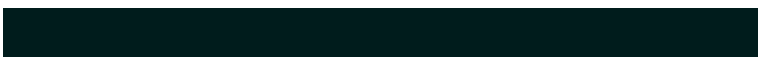
40, 56.358, 284.045



38, 3.777, 198.985



58, 34.644, 196.386



8, 10.518, 197.738



# Previews

## White Background



This preview shows how the CIELCh color 38, 81.836, 39.996 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 38, 81.836, 39.996 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 38, 81.836, 39.996

## Background



This preview shows how black text looks on a background with the CIELCh color 38, 81.836, 39.996.



This preview shows how white text looks on a background with the CIELCh color 38, 81.836, 39.996.

# 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

38, 81.502, 39.993

### Protanopia

39, 39.175, 95.894

### Deuteranopia

39, 47.334, 84.492



**Tritanopia**  
38, 79.781, 41.090



# Trichromacy



**Original Color**  
38, 81.502, 39.993

**Protanomaly**  
34, 49.187, 53.508

**Deuteranomaly**  
35, 57.275, 53.813

**Tritanomaly**  
38, 80.670, 40.641

# Monochromacy



**Original Color**  
38, 81.502, 39.993

**Achromatopsia**  
23, 0.004, 296.813

**Achromatomaly**  
24, 34.137, 27.931

# CSS Examples

## Text

The CSS property to change the color of the text to CIELCh 38, 81.836, 39.996 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(183, 0, 0)` looks like.

```
.text, #text, p{  
    color:rgb(183, 0, 0)  
}
```

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(183, 0, 0) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(183, 0, 0) }
```

## Border

The CSS property to change the border of an element to CIELCh 38, 81.836, 39.996 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(183, 0, 0) }
```

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

```
.border{ border-color:rgb(183, 0, 0) }
```

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

Here you see how a box with a 4 pixel `rgb(183, 0, 0)` colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(183, 0, 0); -webkit-box-shadow:4px  
4px 4px 4px rgb(183, 0, 0); box-shadow:4px  
4px 4px 4px rgb(183, 0, 0) }
```

# Background

The CSS property to change the background color of an element to CIELCh 38, 81.836, 39.996 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(183, 0, 0) }
```

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

```
.background{ background-color: rgb(183, 0,  
0) }
```

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](#).

Hey! You found this booklet  
interesting? Support Converting  
Colors with the new Membership  
Option!

The pro membership hides all ads, plus gives you  
double the colors in the color bucket, and more  
awesome pro features!

**[Learn more, Memberships starting at \\$2.50/m!](#)**

**Follow me  
on Twitter!**

@ConvertingColor