

# Converting Colors

CIELCh(45, 31.186, 146.709)

Have a look what the booklet for  
CIELCh(45, 31.186, 146.709)  
contains.

<b>CIELCh(45, 30.981, 146.705)</b> .....	3
<b><i>Conversions</i></b> .....	4
<b><i>Details</i></b> .....	6
<b><i>Harmonies</i></b> .....	12
<b><i>Previews</i></b> .....	21
<b><i>Color Blindness Simulation</i></b> .....	24
<b><i>CSS Examples</i></b> .....	27

# Color

**CIELCh(45, 30.981, 146.705)**

# Conversions

## Conversions Part 1

<b>Format</b>	<b>Color</b>
Hex	44754D
RGB	68, 117, 77
RGB Percent	27%, 46%, 30%
CMY	0.7326, 0.5404, 0.6973
CMYK	0.42, 0.00, 0.34, 0.54
HSL	131°, 26%, 36%
HSV	131°, 42%, 46%
XYZ	10.1267, 14.5417, 9.3275
YIQ	97.7890, -16.3640, -22.8280

# Conversions

## Conversions Part 2

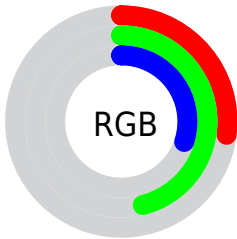
<b>Format</b>	<b>Color</b>
<b>RYB</b>	68, 109, 117
Decimal	4486477
CIELab	45.00, -25.90, 17.01
CIELCh	45, 30.981, 146.705
Yxy	14.5417, 0.2979, 0.4277
Android (android.graphics.Color)	4282676557 (0xFF44754D)
YUV	97.7890, -10.2490, -26.1250
Hunter-Lab	38.1336, -19.3316, 12.1912

# Details

The CIELCh color  $45, 30.981, 146.705$  is a dark color, and the websafe version is hex  $336633$ . A complement of this color would be  $36, 31.039, 332.510$ , and the grayscale version is  $42, 0.006, 296.813$ .

A 20% lighter version of the original color is  $65, 30.696, 146.392$ , and  $25, 30.961, 146.649$  is the 20% darker color. If you saturate the color by 10%, you get  $44, 37.973, 145.599$ , and if you desaturate by 10%, it is  $46, 23.701, 147.672$ .

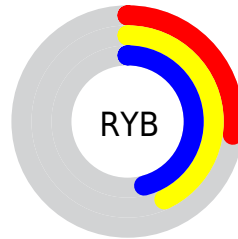
# Distribution



Red (27%)

Green (46%)

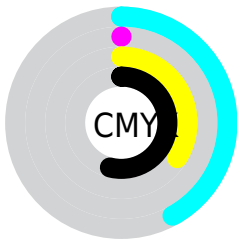
Blue (30%)



Red (27%)

Yellow (43%)

Blue (46%)

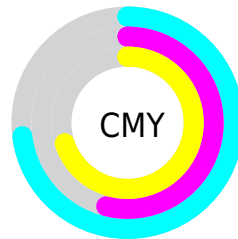


Cyan (42%)

Magenta (0%)

Yellow (34%)

Black (54%)



Cyan (73%)

Magenta (54%)


Yellow (70%)


# Brightness & Saturation Gradients


These gradients show how the CIELCh color 45, 30.981, 146.705 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, 30.981, 146.705 by changing the saturation by 10% instead.





 45, 30.981,  
146.705


 45, 30.981,  
146.705


 100, 30.981,  
146.705


 35, 30.981,  
146.705

 65, 30.981,  
146.705


 25, 30.981,  
146.705

 75, 30.981,  
146.705

 15, 30.981,  
146.705

 85, 30.981,  
146.705

 5, 30.981, 146.705

 95, 30.981,  
146.705

 0, 30.981, 146.705

 45, 30.981,

 45, 30.981,

146.705

146.705

■ 44, 37.973,  
145.599

■ 46, 23.701,  
147.672

■ 44, 44.525,  
144.349

■ 47, 16.262,  
148.512

■ 43, 50.480,  
142.964

■ 48, 8.778, 149.248

■ 43, 55.683,  
141.474

■ 49, 1.337, 150.007

■ 50, 5.996, 330.365

■ 43, 59.991,  
139.945

■ 52, 13.171,  
330.861

■ 42, 62.927,  
138.901

■ 53, 20.159,  
331.286

■ 55, 26.940,  
331.658

■ 56, 33.505,



# Harmonies

# Complementary

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



45, 30.981, 146.705



36, 31.039, 332.510

# Rectangle

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



45, 30.981, 146.705



45, 30.981, 196.705



45, 30.981, 326.705



45, 30.981, 16.705

# Sweetspot

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



45, 30.982, 146.705



61, 12.023, 149.142



47, 28.457, 114.563



31, 8.369, 149.014



82, 0.010, 296.813



33, 0.005, 296.813





# Same Dimension

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



45, 30.982, 146.705



57, 45.616, 145.662



46, 20.821, 170.696



24, 4.177, 149.439



44, 65.040, 138.821



86, 112.610, 137.937



# Inverse Universe

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



36, 31.039, 332.510



44, 45.504, 333.130



35, 23.284, 359.591



23, 4.189, 330.454



27, 58.479, 336.795

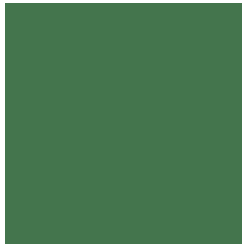


57, 98.414, 337.371



# Previews

## White Background



This preview shows how the CIELCh color 45, 30.981, 146.705 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 CIE LCh color 45, 30.981, 146.705 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, 30.981, 146.705**

## **Background**



This preview shows how black text looks on a background with the CIELCh color 45, 30.981, 146.705.



This preview shows how white text looks on a background with the CIELCh color 45, 30.981, 146.705.

# 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, 30.981, 146.705

### Protanopia

45, 20.490, 95.625

### Deuteranopia

45, 16.444, 68.849





**Tritanopia**  
45, 13.447, 221.864

# Trichromacy



**Original Color**  
45, 30.981, 146.705

**Protanomaly**  
45, 21.807, 121.339

**Deuteranomaly**  
45, 16.626, 113.930

**Tritanomaly**  
45, 16.234, 178.157

# Monochromacy



**Original Color**  
45, 30.981, 146.705

**Achromatopsia**  
42, 0.006, 296.813

**Achromatomaly**  
43, 11.803, 148.327

# CSS Examples

## Text

The CSS property to change the color of the text to CIELCh 45, 30.981, 146.705 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(68, 117, 77)` looks like.

```
.text, #text, p{  
    color:rgb(68, 117, 77)  
}
```

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(68, 117, 77) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(68, 117, 77) }
```

## Border

The CSS property to change the border of an element to CIELCh 45, 30.981, 146.705 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(68, 117, 77) }
```

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

```
.border{ border-color:rgb(68, 117, 77) }
```

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

Here you see how a box with a 4 pixel `rgb(68, 117, 77)` colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(68, 117, 77); -webkit-box-  
shadow:4px 4px 4px 4px rgb(68, 117, 77);  
box-shadow:4px 4px 4px 4px rgb(68, 117,  
77) }
```

# Background

The CSS property to change the background color of an element to CIELCh 45, 30.981, 146.705 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(68, 117, 77) }
```

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

```
.background{ background-color: rgb(68, 117,  
77) }
```

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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