

# Converting Colors

CIELCh(45, 33.871, 140.208)

Have a look what the booklet for  
CIELCh(45, 33.871, 140.208)  
contains.

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# Color

**CIELCh(45, 33.857, 140.093)**

# Conversions

## Conversions Part 1

Format	Color
Hex	487545
RGB	72, 117, 69
RGB Percent	28%, 46%, 27%
CMY	0.7175, 0.5410, 0.7293
CMYK	0.38, 0.00, 0.41, 0.54
HSL	116°, 26%, 36%
HSV	116°, 41%, 46%
XYZ	10.1170, 14.5417, 7.9100
YIQ	98.0730, -11.4120, -24.4680

# Conversions

## Conversions Part 2

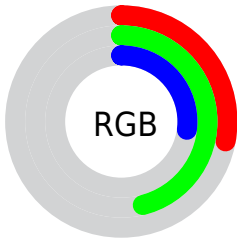
<b>Format</b>	<b>Color</b>
<b>R<sub>YB</sub></b>	69, 117, 114
Decimal	4748613
CIE <sub>Lab</sub>	45.00, -25.97, 21.72
CIE <sub>LCh</sub>	45, 33.857, 140.093
Yxy	14.5417, 0.3106, 0.4465
Android (android.graphics.Color)	4282938693 (0xFF487545)
YUV	98.0730, -14.3330, -22.8660
Hunter-Lab	38.1336, -19.3770, 14.3951

# Details

The CIELCh color **45, 33.857, 140.093** is a dark color, and the websafe version is hex **336633**. A complement of this color would be **36, 33.962, 324.686**, and the grayscale version is **42, 0.006, 296.813**.

A 20% lighter version of the original color is **65, 33.435, 139.978**, and **25, 33.858, 139.931** is the 20% darker color. If you saturate the color by 10%, you get **44, 41.641, 139.224**, and if you desaturate by 10%, it is **46, 25.733, 140.884**.

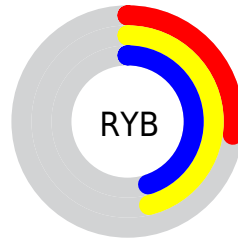
# Distribution



Red (28%)

Green (46%)

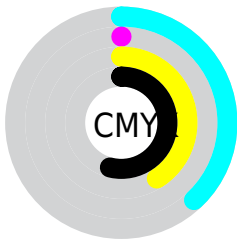
Blue (27%)



Red (27%)

Yellow (46%)

Blue (45%)

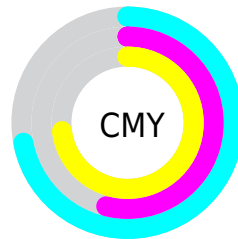


Cyan (38%)

Magenta (0%)

Yellow (41%)

Black (54%)



Cyan (72%)

Magenta (54%)


Yellow (73%)


# Brightness & Saturation Gradients


These gradients show how the CIELCh color 45, 33.857, 140.093 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, 33.857, 140.093 by changing the saturation by 10% instead.





 45, 33.857,  
140.093


 45, 33.857,  
140.093


 100, 33.857,  
140.093


 35, 33.857,  
140.093

 65, 33.857,  
140.093


 25, 33.857,  
140.093

 75, 33.857,  
140.093

 15, 33.857,  
140.093

 85, 33.857,  
140.093

 5, 33.857, 140.093

 95, 33.857,  
140.093

 0, 33.857, 140.093

 45, 33.857,

 45, 33.857,

140.093

■ 44, 41.641,  
139.224

■ 44, 48.867,  
138.309

■ 43, 55.267,  
137.412

■ 43, 60.533,  
136.633

■ 43, 64.361,  
136.092

■ 42, 66.971,  
135.570

140.093

■ 46, 25.733,  
140.884

■ 47, 17.438,  
141.586

■ 48, 9.103, 142.202

■ 49, 0.827, 142.906

■ 50, 7.319, 323.133

■ 52, 15.289,  
323.528

■ 53, 23.051,  
323.858

■ 55, 30.588,  
324.139

■ 57, 37.893,



# Harmonies

# Complementary

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



45, 33.857, 140.093



36, 33.962, 324.686

# Rectangle

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



45, 33.857, 140.093



45, 33.857, 190.093



45, 33.857, 320.093



45, 33.857, 10.093

# Sweetspot

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



45, 33.858, 140.093



61, 12.360, 142.126



47, 25.971, 103.344



31, 8.154, 142.071



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, 33.858, 140.093



57, 49.864, 139.292



45, 25.018, 156.536



24, 4.654, 142.316



44, 69.173, 135.593



86, 117.653, 135.828



# Inverse Universe

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



36, 33.962, 324.686



44, 49.939, 325.064



36, 25.814, 343.755



23, 4.666, 323.170



27, 67.355, 325.870



57, 114.222, 325.741



# Previews

## White Background



This preview shows how the CIELCh color 45, 33.857, 140.093 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, 33.857, 140.093 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, 33.857, 140.093**

## **Background**



This preview shows how black text looks on a background with the CIELCh color 45, 33.857, 140.093.



This preview shows how white text looks on a background with the CIELCh color 45, 33.857, 140.093.

# 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, 33.857, 140.093


### Protanopia

45, 24.535, 95.707

### Deuteranopia

45, 20.805, 72.193





**Tritanopia**  
45, 11.709, 225.850

# Trichromacy



**Original Color**  
45, 33.857, 140.093

**Protanomaly**  
45, 26.042, 116.581

**Deuteranomaly**  
44, 20.595, 107.201

**Tritanomaly**  
45, 15.566, 170.168

# Monochromacy



**Original Color**  
45, 33.857, 140.093

**Achromatopsia**  
42, 0.006, 296.813

**Achromatomaly**  
43, 12.792, 140.547

# CSS Examples

## Text

The CSS property to change the color of the text to CIELCh 45, 33.857, 140.093 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(72, 117, 69)` looks like.

```
.text, #text, p{  
    color:rgb(72, 117, 69)  
}
```

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(72, 117, 69) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(72, 117, 69) }
```

## Border

The CSS property to change the border of an element to CIELCh 45, 33.857, 140.093 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(72, 117, 69) }
```

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

```
.border{ border-color:rgb(72, 117, 69) }
```

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

Here you see how a box with a 4 pixel `rgb(72, 117, 69)` colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(72, 117, 69); -webkit-box-  
shadow:4px 4px 4px 4px rgb(72, 117, 69);  
box-shadow:4px 4px 4px 4px rgb(72, 117,  
69) }
```

# Background

The CSS property to change the background color of an element to CIELCh 45, 33.857, 140.093 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(72, 117, 69) }
```

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

```
.background{ background-color: rgb(72, 117,  
69) }
```

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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