

# Converting Colors

CIELCh(22, 20.790, 68.921)

Have a look what the booklet for  
CIELCh(22, 20.790, 68.921) contains.

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# Color

**CIELCh(22, 20.716, 69.016)**

# Conversions

Conversions Part 1	
Format	Color
Hex	473018
RGB	71, 48, 24
RGB Percent	28%, 19%, 9%
CMY	0.7217, 0.8119, 0.9060
CMYK	0.00, 0.32, 0.66, 0.72
HSL	31°, 49%, 19%
HSV	31°, 66%, 28%
XYZ	3.8162, 3.5154, 1.3400
YIQ	52.1410, 21.4120, -2.5880

# Conversions

## Conversions Part 2

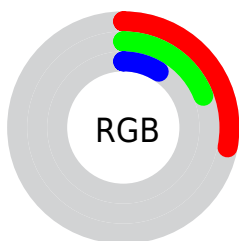
Format	Color
<a href="#">RYB</a>	<a href="#">69, 71, 24</a>
Decimal	<a href="#">4665368</a>
CIELab	<a href="#">22.00, 7.42, 19.34</a>
CIELCh	<a href="#">22, 20.716, 69.016</a>
Yxy	<a href="#">3.5154, 0.4401, 0.4054</a>
Android (android.graphics.Color)	<a href="#">4282855448</a> (0xFF473018)
YUV	<a href="#">52.1410, -13.8735, 16.5393</a>
Hunter-Lab	<a href="#">18.7494, 3.5195, 8.8873</a>

# Details

The CIELCh color **22, 20.716, 69.016** is a dark color, and the websafe version is hex **333300**. A complement of this color would be **19, 17.678, 268.818**, and the grayscale version is **22, 0.004, 296.813**.

A 20% lighter version of the original color is **42, 20.427, 69.234**, and **2, 8.071, 22.268** is the 20% darker color. If you saturate the color by 10%, you get **21, 24.148, 67.773**, and if you desaturate by 10%, it is **23, 17.293, 70.206**.

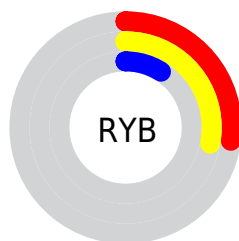
# Distribution



 Red (28%)

 Green (19%)

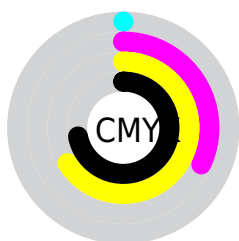
 Blue (9%)




 Red (27%)

 Yellow (28%)

 Blue (9%)

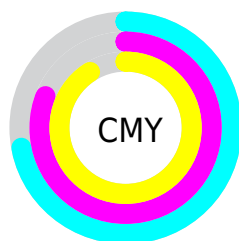



 Cyan (0%)


 Magenta (32%)

 Yellow (66%)

 Black (72%)



 Cyan (72%)

 Magenta (81%)

 Yellow (91%)

# Brightness & Saturation Gradients


These gradients show how the CIELCh color 22, 20.716, 69.016 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 22, 20.716, 69.016 by changing the saturation by 10% instead.



 22, 20.716, 69.016

 22, 20.716, 69.016

 100, 20.716,  
69.016

 12, 20.716, 69.016

 42, 20.716, 69.016

 2, 20.716, 69.016

 52, 20.716, 69.016

 0, 20.716, 69.016

 62, 20.716, 69.016

 72, 20.716, 69.016

 82, 20.716, 69.016

 92, 20.716, 69.016

 22, 20.716, 69.016

 22, 20.716, 69.016

■ 21, 24.148, 67.773

■ 23, 17.293, 70.206

■ 20, 26.978, 65.946

■ 24, 13.948, 71.366

■ 19, 29.338, 63.902

■ 26, 10.713, 72.511

■ 18, 30.236, 63.226

■ 27, 7.599, 73.642

■ 28, 4.607, 74.751

■ 29, 1.731, 75.795

■ 31, 1.038, 257.142

■ 32, 3.707, 258.079

■ 33, 6.287, 259.084

# Harmonies

# Complementary

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



22, 20.716, 69.016



19, 17.678, 268.818

# Rectangle

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



22, 20.716, 69.016



22, 20.716, 119.016



22, 20.716, 249.016



22, 20.716, 299.016

# Sweetspot

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



22, 20.716, 69.020



36, 7.098, 74.249



17, 25.728, 350.491



17, 4.784, 74.112



71, 0.009, 296.813



19, 0.004, 296.813



# Same Dimension

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



22, 20.716, 69.020



27, 31.121, 66.989



29, 28.458, 104.709



13, 1.566, 75.562



27, 41.527, 63.459



61, 77.922, 60.939





# Inverse Universe

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



19, 17.678, 268.818



22, 25.876, 273.897



11, 33.897, 299.386



13, 1.542, 257.628



20, 34.882, 282.197



48, 68.473, 285.741



# Previews

## White Background



This preview shows how the CIE LCh color 22, 20.716, 69.016 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



This preview shows how the CIELCh color 22, 20.716, 69.016 looks on a 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 22, 20.716, 69.016**

## **Background**



This preview shows how black text looks on a background with the CIELCh color 22, 20.716, 69.016.

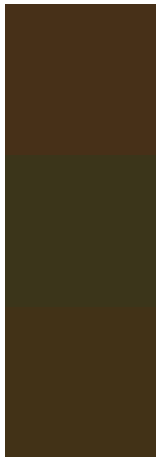


This preview shows how white text looks on a background with the CIELCh color 22, 20.716, 69.016.

# 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

22, 20.716, 69.016

### Protanopia

22, 17.984, 95.843

### Deuteranopia

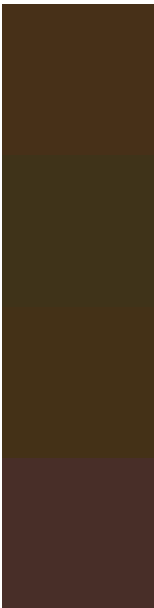
22, 20.018, 80.118



**Tritanopia**  
22, 13.830, 11.588



# Trichromacy



**Original Color**  
22, 20.716, 69.016

**Protanomaly**  
22, 18.427, 85.562

**Deuteranomaly**  
22, 20.381, 75.422

**Tritanomaly**  
22, 14.097, 38.259

# Monochromacy



**Original Color**  
22, 20.716, 69.016

**Achromatopsia**  
22, 0.004, 296.813

**Achromatomaly**  
22, 7.260, 75.375

# CSS Examples

## Text

The CSS property to change the color of the text to CIElCh 22, 20.716, 69.016 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(71, 48, 24)` looks like.

```
.text, #text, p{  
    color:rgb(71, 48, 24)  
}
```

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(71, 48, 24) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(71, 48, 24) }
```

## Border

The CSS property to change the border of an element to CIELCh 22, 20.716, 69.016 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(71, 48, 24) }
```

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

```
.border{ border-color:rgb(71, 48, 24) }
```

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

Here you see how a box with a 4 pixel rgb(71, 48, 24) colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(71, 48, 24); -webkit-box-  
shadow:4px 4px 4px 4px rgb(71, 48, 24);  
box-shadow:4px 4px 4px 4px rgb(71, 48, 24)  
}
```

# Background

The CSS property to change the background color of an element to CIELCh 22, 20.716, 69.016 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(71, 48, 24) }
```

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

```
.background{ background-color: rgb(71, 48,  
24) }
```

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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