

Converting Colors

CIE Lab(20.07, 0.00, 0.00)

Have a look what the booklet for
CIELab(20.07, 0.00, 0.00) contains.

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Color

CIELab(19.87, 0.00, 0.00)

Conversions

Conversions Part 1

Format	Color
Hex	303030
RGB	48, 48, 48
RGB Percent	19%, 19%, 19%
CMY	0.8117, 0.8117, 0.8117
CMYK	0.00, 0.00, 0.00, 0.81
HSL	78°, 0%, 19%
HSV	78°, 0%, 19%
XYZ	2.8103, 2.9568, 3.2194
YIQ	48.0000, -0.0000, 0.0000

Conversions

Conversions Part 2

Format	Color
R _Y B	48, 48, 48
Decimal	3158064
CIE Lab	19.87, 0.00, 0.00
CIE LCh	20, 0.000, 0.000
Yxy	2.9568, 0.3127, 0.3290
Android (android.graphics.Color)	4281348144 (0xFF303030)
YUV	48.0000, 0.0000, 0.0000
Hunter-Lab	17.1953, -0.9184, 0.9360

Details

The CIELab color **19.87, 0.00, 0.00** is a dark color, and the **websafe** version is hex **333333**. A complement of this color would be **19.87, 0.00, -0.01**, and the grayscale version is **19.87, 0.00, -0.00**.

A 20% lighter version of the original color is **39.90, 0.00, -0.01**, and **0.00, 0.00, 0.00** is the 20% darker color. If you saturate the color by 10%, you get **19.57, -1.75, 2.85**, and if you desaturate by 10%, it is **20.18, 1.79, -2.82**.

Distribution



Red (19%)

Green (19%)

Blue (19%)



Red (19%)

Yellow (19%)

Blue (19%)



Cyan (0%)

Magenta (0%)

Yellow (0%)

Black (81%)



Cyan (81%)

Magenta (81%)

Yellow (81%)

Brightness & Saturation Gradients

These gradients show how the CIELab color 19.87, 0.00, 0.00 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 CIELab color 19.87, 0.00, 0.00 by changing the saturation by 10% instead.

■ 19.87, 0.00, 0.00	■ 19.87, 0.00, 0.00
■ 19.57, -1.75, 2.85	■ 20.18, 1.79, -2.82
■ 19.30, -3.45, 5.73	■ 20.51, 3.62, -5.60
■ 19.04, -5.09, 8.62	■ 20.86, 5.47, -8.35
■ 18.79, -6.65, 11.49	■ 21.22, 7.35, -11.05
■ 18.57, -8.14, 14.32	■ 21.60, 9.23, -13.70
■ 18.36, -9.55, 17.08	■ 21.99, 11.13,
■ 18.17, -10.86,	-16.31
19.58	■ 22.39, 13.03,
■ 17.99, -12.07,	-18.87
21.53	■ 22.81, 14.93,
■ 17.83, -13.24,	-21.39
23.26	■ 23.24, 16.82,
	-23.87

Harmonies

Complementary

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



19.87, 0.00, 0.00



19.87, 0.00, -0.01

Sweetspot

The sweet spot groups the original color and five complimentary colors.



19.87, -0.00, 0.00



25.85, 0.00, -0.00



19.87, 0.00, -0.00



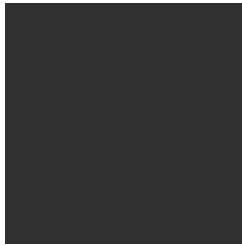
11.56, 0.00, -0.00



65.15, 0.00, -0.01

Previews

White Background



This preview shows how the CIE Lab color 19.87, 0.00, 0.00 looks on a white background.

Color Contrast Check

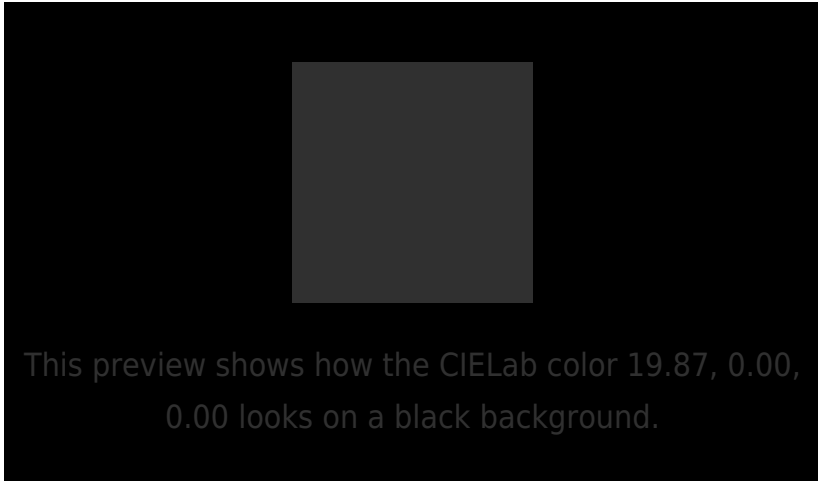
Large Text (above 18pt) WCAG AA ✓ Pass

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

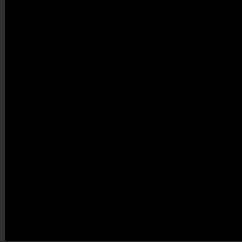
Large Text (above 18pt) WCAG AAA × Fail

Any Text WCAG AAA × Fail

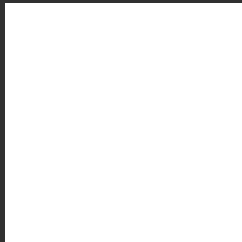
If you want to check with other color combinations, try the [Color Contrast Checker](#).

CIELab 19.87, 0.00, 0.00

Background



This preview shows how black text looks on a background with the CIELab color 19.87, 0.00, 0.00.

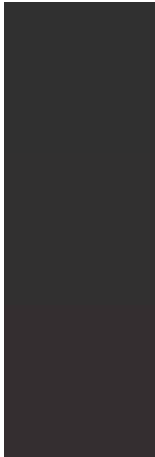


This preview shows how white text looks on a background with the CIELab color 19.87, 0.00, 0.00.

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


19.87, 0.00, -0.00

Protanopia

19.96, 0.44, 0.15

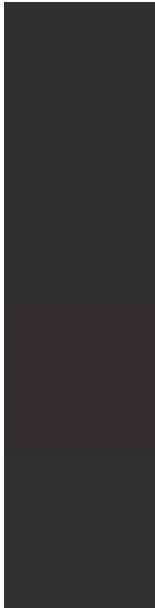
Deuteranopia

19.63, 3.15, -0.30



Tritanopia
20.07, 1.15, -1.76

Trichromacy



Original Color

19.87, 0.00, -0.00

Protanomaly

19.96, 0.44, 0.15

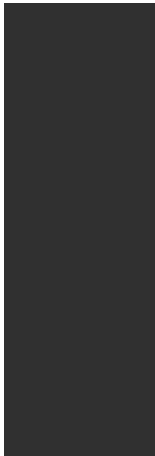
Deuteranomaly

19.84, 2.01, 0.00

Tritanomaly

20.03, 0.91, -1.12

Monochromacy



Original Color

19.87, 0.00, -0.00

Achromatopsia

19.87, 0.00, -0.00

Achromatomaly

19.87, 0.00, -0.00

CSS Examples

Text

The CSS property to change the color of the text to CIE Lab 19.87, 0.00, 0.00 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(48, 48, 48)` looks like.

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

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

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

Border

The CSS property to change the border of an element to CIE Lab 19.87, 0.00, 0.00 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(48, 48, 48) }
```

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

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

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

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

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

Background

The CSS property to change the background color of an element to CIE Lab 19.87, 0.00, 0.00 is called "background". The background property can be set on classes, ids or directly on the HTML element.

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

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

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

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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