

# HTML Colors

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HTML colors are specified using predefined color names, or RGB, HEX, HSL, RGBA, HSLA values.

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## Color Names

In HTML, a color can be specified by using a color name:



HTML supports [140 standard color names](#).

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## Background Color

You can set the background color for HTML elements:

Hello World

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.

## Example

```
<h1 style="background-color: DodgerBlue;">Hello World</h1>  
<p style="background-color: Tomato;">Lorem ipsum...</p>
```

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## Text Color

You can set the color of text:

### Hello World

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat.

Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.

## Example

```
<h1 style="color: Tomato;">Hello World</h1>  
<p style="color: DodgerBlue;">Lorem ipsum...</p>  
<p style="color: MediumSeaGreen;">Ut wisi enim...</p>
```

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## Border Color

You can set the color of borders:

Hello World

Hello World

Hello World

## Example

```
<h1 style="border: 2px solid Tomato;">Hello World</h1>  
<h1 style="border: 2px solid DodgerBlue;">Hello World</h1>
```

```
<h1 style="border:2px solid Violet;">Hello World</h1>
```

---

## Color Values

In HTML, colors can also be specified using RGB values, HEX values, HSL values, RGBA values, and HSLA values:

Same as color name "Tomato":

```
rgb(255, 99, 71)
```

```
#ff6347
```

```
hsl(9, 100%, 64%)
```

Same as color name "Tomato", but 50% transparent:

```
rgba(255, 99, 71, 0.5)
```

```
hsla(9, 100%, 64%, 0.5)
```

## Example

```
<h1 style="background-color:rgb(255, 99, 71);">...</h1>
```

```
<h1 style="background-color:#ff6347;">...</h1>
```

```
<h1 style="background-color:hsl(9, 100%, 64%);">...</h1>
```

```
<h1 style="background-color:rgba(255, 99, 71, 0.5);">...</h1>
```

```
<h1 style="background-color:hsla(9, 100%, 64%, 0.5);">...</h1>
```

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## RGB Value

In HTML, a color can be specified as an RGB value, using this formula:

```
rgb(red, green, blue)
```

Each parameter (red, green, and blue) defines the intensity of the color between 0 and 255.

For example, `rgb(255, 0, 0)` is displayed as red, because red is set to its highest value (255) and the others are set to 0.

To display the color black, all color parameters must be set to 0, like this: `rgb(0, 0, 0)`.

To display the color white, all color parameters must be set to 255, like this: `rgb(255, 255, 255)`.

Experiment by mixing the RGB values below:



```
rgb(255, 99, 71)
```

RED

255

GREEN

99

BLUE

71

### Example



```
rgb(255, 0, 0)
```



```
rgb(0, 0, 255)
```



```
rgb(60, 179, 113)
```



```
rgb(238, 130, 238)
```



```
rgb(255, 165, 0)
```



```
rgb(106, 90, 205)
```

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Shades of gray are often defined using equal values for all the 3 light sources:

### Example

`rgb(0, 0, 0)`

`rgb(60, 60, 60)`

`rgb(120, 120, 120)`

`rgb(180, 180, 180)`

`rgb(240, 240, 240)`

`rgb(255, 255, 255)`

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### HEX Value

In HTML, a color can be specified using a hexadecimal value in the form:

**`#rrggbb`**

Where rr (red), gg (green) and bb (blue) are hexadecimal values between 00 and ff (same as decimal 0-255).

For example, `#ff0000` is displayed as red, because red is set to its highest value (ff) and the others are set to the lowest value (00).

### Example

`#ff0000`

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#0000ff

#3cb371

#ee82ee

#ffa500

#6a5acd

Shades of gray are often defined using equal values for all the 3 light sources:

### Example

#000000

#3c3c3c

#787878

#b4b4b4

#f0f0f0

#ffffff

---

## HSL Value

In HTML, a color can be specified using hue, saturation, and lightness (HSL) in the form:

**`hsl(hue, saturation, lightness)`**

Hue is a degree on the color wheel from 0 to 360. 0 is red, 120 is green, and 240 is blue.

Saturation is a percentage value, 0% means a shade of gray, and 100% is the full color.

Lightness is also a percentage, 0% is black, 50% is neither light or dark, 100% is white

### Example



`hsl(0, 100%, 50%)`

`hsl(240, 100%, 50%)`

`hsl(147, 50%, 47%)`

`hsl(300, 76%, 72%)`

`hsl(39, 100%, 50%)`

`hsl(248, 53%, 58%)`

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### Saturation

Saturation can be described as the intensity of a color.

100% is pure color, no shades of gray

50% is 50% gray, but you can still see the color.

0% is completely gray, you can no longer see the color.

## Example

```
hsl(0, 100%, 50%)
```

```
hsl(0, 80%, 50%)
```

```
hsl(0, 60%, 50%)
```

```
hsl(0, 40%, 50%)
```

```
hsl(0, 20%, 50%)
```

```
hsl(0, 0%, 50%)
```

---

## Lightness

The lightness of a color can be described as how much light you want to give the color, where 0% means no light (black), 50% means 50% light (neither dark nor light) 100% means full lightness (white).

## Example

```
hsl(0, 100%, 0%)
```

```
hsl(0, 100%, 25%)
```

```
hsl(0, 100%, 50%)
```



```
hsl(0, 100%, 75%)
```

```
hsl(0, 100%, 90%)
```

```
hsl(0, 100%, 100%)
```

---

Shades of gray are often defined by setting the hue and saturation to 0, and adjust the lightness from 0% to 100% to get darker/lighter shades:

### Example

```
hsl(0, 0%, 0%)
```

```
hsl(0, 0%, 24%)
```

```
hsl(0, 0%, 47%)
```

```
hsl(0, 0%, 71%)
```

```
hsl(0, 0%, 94%)
```

```
hsl(0, 0%, 100%)
```

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## RGBA Value

RGBA color values are an extension of RGB color values with an alpha channel - which specifies the opacity for a color.

An RGBA color value is specified with:

## **`rgba(red, green, blue, alpha)`**

The alpha parameter is a number between 0.0 (fully transparent) and 1.0 (not transparent at all):

### **Example**

```
rgba(255, 99, 71, 0)
```

```
rgba(255, 99, 71, 0.2)
```

```
rgba(255, 99, 71, 0.4)
```

```
rgba(255, 99, 71, 0.6)
```

```
rgba(255, 99, 71, 0.8)
```

```
rgba(255, 99, 71, 1)
```

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## **HSLA Value**

HSLA color values are an extension of HSL color values with an alpha channel - which specifies the opacity for a color.

An HSLA color value is specified with:

## **`hsla(hue, saturation, lightness, alpha)`**

The alpha parameter is a number between 0.0 (fully transparent) and 1.0 (not transparent at all):

### **Example**

```
hsla(9, 100%, 64%, 0)
```

---

`hsla(9, 100%, 64%, 0.2)`

`hsla(9, 100%, 64%, 0.4)`

`hsla(9, 100%, 64%, 0.6)`

`hsla(9, 100%, 64%, 0.8)`

`hsla(9, 100%, 64%, 1)`