

# Colors

## CSS Color Alpha Values

*Alpha values* determine the transparency of colors in CSS. Alpha values can be set for both RGB and HSL colors by using `rgba()` and `hsla()` and providing a fourth value representing alpha. Alpha values can range between 0.0 (totally transparent) and 1.0 (totally opaque).

The CSS `transparent` value can also be used to create a fully transparent element.

```
.midground {
  background-color: rgba(0, 255, 0, 0.5);
}

.foreground {
  background-color: hsla(34, 100%, 50%, 0.1);
}

.transparent {
  color: transparent;
}
```

## CSS Hexadecimal Colors

CSS colors can be represented in *hexadecimal* (or *hex*) notation. Hexadecimal digits can represent sixteen different values using 0 - 9 and a - f.

Hexadecimal colors are composed of 6 characters—each group of two represents a value between 0 and 255 for red, green, or blue. For example `#ff0000` is all red, no green, and no blue.

When both characters of all three colors are repeated, hex colors can be abbreviated to only three values, so `#0000ff` could also be represented as `#00f`.

```
.red {
  color: #ff0000;
}

.short-blue {
  color: #00f;
```

## CSS HSL Colors

CSS colors can be declared with the *HSL* color system using `hsl()` syntax. This syntax contains three values: *hue* (the color value itself), *saturation* (intensity), and *lightness*. Hue values range from 0 to 360 while saturation and lightness values are represented as percentages.

```
.light-blue {
    background-color: hsl(200, 70%, 50%);
}
```

## CSS rgb() Colors

CSS colors can be declared with *RGB colors* using `rgb()` syntax.

`rgb()` should be supplied with three values representing red, green, and blue. These values range can from 0 to 255.

```
.hot-pink {
    color: rgb(249, 2, 171);
}

.green {
    color: rgb(0, 255, 0);
}
```

## Color Name Keywords

Color name keywords can be used to set color property values for elements in CSS.

```
h1 {
    color: aqua;
}

li {
    color: khaki;
}
```