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HTML HSL and HSLA Colors

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HSL stands for hue, saturation, and lightness.

HSLA color values are an extension of HSL with an Alpha channel (opacity).

HSL Color Values

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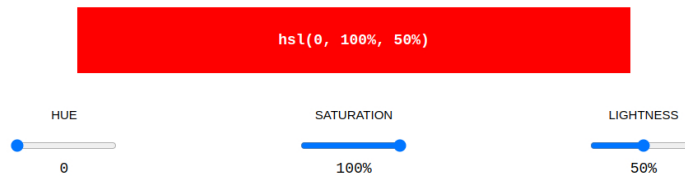
hsl(*hue, saturation, lightness*)

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 value. 0% is black, and 100% is white.

Experiment by mixing the HSL values below:

hsl(0, 100%, 50%)

HUE	SATURATION	LIGHTNESS
0	100%	50%

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%)

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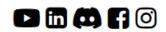
Lightness

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), and 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%)

Try it Yourself »

Shades of Gray

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

Example

hsl(0, 0%, 20%)	hsl(0, 0%, 30%)
hsl(0, 0%, 40%)	hsl(0, 0%, 60%)
hsl(0, 0%, 70%)	hsl(0, 0%, 90%)

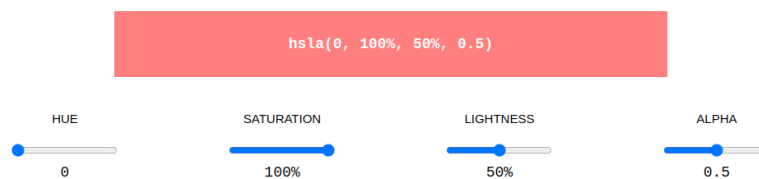Try it Yourself »

HSLA Color Values

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):

Experiment by mixing the HSLA values below:

hsla(0, 100%, 50%, 0.5)

HUE	SATURATION	LIGHTNESS	ALPHA
0	100%	50%	0.5

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)

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Exercise ?

Which one of the following color values will result in a black color?

hsl(0, 100%, 0%)

hsl(0, 0, 100%)

hsl(0, 100%, 100%)

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