

# CSS animatable properties

 oli.jp /2010/css-animatable-properties/

This is a reordered list of animatable CSS properties and their animatable values, based on the [CSS Transitions Module \(level 3\) Editor's Draft](#), plus the “Animatable:” status for each property of each [CSS3 spec Editor's Draft](#). **This is the theory.** For browser support info go to [CSS Animatable Properties: Browser support](#), a collaboration with Rodney Rehm.

You can find out more about CSS Transitions and Animations in:

Remember that if the property uses a vendor prefix, you'll need to also prefix it when using with CSS Transitions or Animations, e.g.:

```
.postcard:hover {  
  -webkit-transition-property: -webkit-  
transform;  
  -moz-transition-property:      -moz-  
transform;  
  -ms-transition-property:      -ms-  
transform;  
  -o-transition-property:       -o-  
transform;  
  transition-property:  
transform;  
}
```

Property Type	Property Name	Transitionable Values
Catch-all	all	(all transitionable properties)
Text properties	color	color
	font shorthand	(see individual properties)
	font-size	length or percentage
	font-size-adjust	number
	font-stretch	keywords (in steps)
	font-weight	number or keywords (excluding bolder, lighter)
	letter-spacing	length
	line-height	number or length
	max-lines (for overflow)	integer
	text-decoration-color	color
	text-emphasis-color	color

Property Type	Property Name	Transitionable Values
	<code>text-indent</code>	length, percentage, or calc
	<code>text-shadow</code>	shadow
	<code>text-size-adjust</code>	percentage
	<code>vertical-align</code>	keywords, length, or percentage
	<code>word-spacing</code>	length or percentage
<b>Box properties</b>	<code>background shorthand</code>	<i>(see individual properties)</i>
	<code>background-color</code>	color
	<code>background-image</code> <sup>2</sup>	images, gradients
	<code>background-position</code>	as repeatable, simple list of percentage, length, or calc
	<code>background-size</code> <sup>4</sup>	as repeatable, simple list of percentage, length, or calc
	<code>border shorthand</code>	<i>(see individual properties)</i>
	<code>border-color shorthand</code>	<i>(see individual properties)</i>
	<code>border-top-color</code> etc <sup>3</sup>	color
	<code>border-radius shorthand</code>	<i>(see individual properties)</i>
	<code>border-top-right-radius</code> etc <sup>3</sup>	length <i>(one or two values)</i>
	<code>border-spacing</code>	as simple list of length
	<code>border-top</code> etc shorthands <sup>3</sup>	<i>(see individual properties)</i>
	<code>border-width shorthand</code>	<i>(see individual properties)</i>
	<code>border-top-width</code> etc <sup>3</sup>	length
	<code>box-shadow</code>	as shadow list <i>(at risk)</i>
	<code>clip</code>	rectangle
	<code>crop</code>	rectangle
	<code>height, min-height, max-height</code>	length, percentage, or calc
	<code>margin</code>	<i>(see individual properties)</i>
	<code>margin-top</code> etc <sup>3</sup>	length
	<code>opacity</code>	number
	<code>outline-color</code>	color

Property Type	Property Name	Transitionable Values
	<code>outline-offset</code>	length
	<code>outline-width</code>	length
	<code>padding shorthand</code>	<i>(see individual properties)</i>
	<code>padding-top etc<sup>3</sup></code>	length
	<code>width, min-width, max-width</code>	length, percentage, or calc
Positioning properties	<code>top, right, bottom, left</code>	length, percentage, or calc
	<code>offset-before, offset-end, offset-after, offset-start</code>	length or percentage
	<code>visibility<sup>5</sup></code>	visibility
	<code>z-index</code>	integer
	<code>zoom</code>	number
Multi-column layout properties	<code>columns shorthand</code>	<i>(see individual properties)</i>
	<code>column-count</code>	integer
	<code>column-gap</code>	length
	<code>column-rule shorthand</code>	<i>(see individual properties)</i>
	<code>column-rule-color</code>	color
	<code>column-rule-width</code>	length
	<code>column-width</code>	length
Flexbox properties	<code>flex shorthand</code>	<i>(see individual properties)</i>
	<code>flex-grow</code>	number <i>(except to/from 0)</i>
	<code>flex-shrink</code>	number <i>(except to/from 0)</i>
	<code>flex-basis</code>	same as <code>width</code> <i>(length, percentage, or calc)</i>
	<code>order</code>	integer
Transforms properties	<code>perspective</code>	length
	<code>perspective-origin</code>	as simple list of length, percentage, or calc
	<code>transform</code>	as transform
	<code>transform-origin</code>	as simple list of length, percentage, or calc

Property Type	Property Name	Transitionable Values
SVG properties	<code>fill</code>	paint server
	<code>fill-opacity</code>	float
	<code>flood-color</code>	color or keywords
	<code>lighting-color</code>	color or keywords
	<code>marker-offset</code>	length
	<code>stop-color</code>	color
	<code>stop-opacity</code>	float
	<code>stroke</code>	paint server
	<code>stroke-dasharray</code>	list of numbers
	<code>stroke-dashoffset</code>	number
	<code>stroke-miterlimit</code>	number
	<code>stroke-opacity</code>	float
	<code>stroke-width</code>	float
	<code>viewport-fill</code>	color
	<code>viewport-fill-opacity</code>	color

Note there are some additional properties that Firefox supports, but it's unlikely they'll be added to the specs:

- `-moz-box-flex` etc.
- `-moz-image-region`
- `-moz-outline-radius` etc.

There are several [properties or values you'll want to transition](#), but which are not supported by browsers or the specs at the time of writing:

- `background-image` ([support is iffy](#))
- `float`
- `height` or `width` using the value `auto` (currently both values must be a length or percentage)
  - The same applies to `top`, `right`, `bottom` and `left`, but despite the spec (and probably due to a bug) WebKit browsers can animate these using `auto`
- `display` between `none` and anything else
- `position` between `static` and `absolute`

The CSS Working Group is aware of these issues, and for example [transitioning background-image](#) is being worked on, so while some of these are just *damn hard* for a browser to actually do, this may change in the future!

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