

Box Sizing in CSS

The `box-sizing` property in CSS controls how the total width and height of an element are calculated.

Box Sizing Values

There are two main values for `box-sizing`:

1. **content-box** (default)
2. **border-box**

1. `box-sizing: content-box;` (Default)

- **Width and height** apply **only to the content area**.
- **Padding and border** are **added outside** the width and height.
- **Total element size = width + padding + border**

Example:

```
div {  
  width: 200px;  
  padding: 10px;  
  border: 5px solid black;  
  box-sizing: content-box; /* default */  
}
```

Total width: 200px (content) + 20px (padding) + 10px (border) = **230px**

2. `box-sizing: border-box;`

- **Width and height** include **content, padding, and border**.
- The **total size** of the element is exactly the width and height you set.
- **Total element size = width**

Example:

```
div {  
  width: 200px;  
  padding: 10px;  
  border: 5px solid black;  
  box-sizing: border-box;  
}
```

Total width: 200px (content + padding + border)

Why Use `box-sizing: border-box;`?

- Makes layouts easier to manage.
- Prevents elements from unexpectedly growing in size when you add padding or borders.
- Commonly used in modern CSS frameworks.

Best Practice:

Many developers use this universal rule to make all elements use `border-box`:

```
*,
*::before,
*::after {
  box-sizing: border-box;
}
```

Summary Table

Value	What width/height includes	Total element size calculation
content-box	Content only	width + padding + border
border-box	Content + padding + border	width (includes everything)

In short:

- `content-box`: width/height is just the content.
- `border-box`: width/height includes padding and border (preferred for layouts).