

# Converting Colors - WCAG Matrix

## Web Content Accessibility Guidelines (WCAG) 2.0 - Color Matrix.

|             | Hex(4D4D4D)                                             | Hex(646464)                                             | Hex(7D7D7D)                         | Hex(979797)                        | Hex(B2B2B2)                         | Hex(CDCDCD)                                             | Hex(EAEAEA)                                             | Hex(FFFFFF)                                             |
|-------------|---------------------------------------------------------|---------------------------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|
| Hex(4D4D4D) |                                                         | Ratio: 1.43<br>Failed <sup>5</sup>                      | Ratio: 2.05<br>Failed <sup>5</sup>  | Ratio: 2.89<br>Failed <sup>5</sup> | Ratio: 3.99<br>AA 18pt <sup>2</sup> | Ratio: 5.32<br>AA <sup>1</sup><br>AAA 18pt <sup>4</sup> | Ratio: 7.03<br>Passed <sup>6</sup>                      | Ratio: 8.45<br>Passed <sup>6</sup>                      |
| Hex(646464) | Ratio: 1.43<br>Failed <sup>5</sup>                      |                                                         | Ratio: 1.44<br>Failed <sup>5</sup>  | Ratio: 2.03<br>Failed <sup>5</sup> | Ratio: 2.79<br>Failed <sup>5</sup>  | Ratio: 3.72<br>AA 18pt <sup>2</sup>                     | Ratio: 4.92<br>AA <sup>1</sup><br>AAA 18pt <sup>4</sup> | Ratio: 5.92<br>AA <sup>1</sup><br>AAA 18pt <sup>4</sup> |
| Hex(7D7D7D) | Ratio: 2.05<br>Failed <sup>5</sup>                      | Ratio: 1.44<br>Failed <sup>5</sup>                      |                                     | Ratio: 1.41<br>Failed <sup>5</sup> | Ratio: 1.94<br>Failed <sup>5</sup>  | Ratio: 2.59<br>Failed <sup>5</sup>                      | Ratio: 3.42<br>AA 18pt <sup>2</sup>                     | Ratio: 4.12<br>AA 18pt <sup>2</sup>                     |
| Hex(979797) | Ratio: 2.89<br>Failed <sup>5</sup>                      | Ratio: 2.03<br>Failed <sup>5</sup>                      | Ratio: 1.41<br>Failed <sup>5</sup>  |                                    | Ratio: 1.38<br>Failed <sup>5</sup>  | Ratio: 1.84<br>Failed <sup>5</sup>                      | Ratio: 2.43<br>Failed <sup>5</sup>                      | Ratio: 2.92<br>Failed <sup>5</sup>                      |
| Hex(B2B2B2) | Ratio: 3.99<br>AA 18pt <sup>2</sup>                     | Ratio: 2.79<br>Failed <sup>5</sup>                      | Ratio: 1.94<br>Failed <sup>5</sup>  | Ratio: 1.38<br>Failed <sup>5</sup> |                                     | Ratio: 1.33<br>Failed <sup>5</sup>                      | Ratio: 1.76<br>Failed <sup>5</sup>                      | Ratio: 2.12<br>Failed <sup>5</sup>                      |
| Hex(CDCDCD) | Ratio: 5.32<br>AA <sup>1</sup><br>AAA 18pt <sup>4</sup> | Ratio: 3.72<br>AA 18pt <sup>2</sup>                     | Ratio: 2.59<br>Failed <sup>5</sup>  | Ratio: 1.84<br>Failed <sup>5</sup> | Ratio: 1.33<br>Failed <sup>5</sup>  |                                                         | Ratio: 1.32<br>Failed <sup>5</sup>                      | Ratio: 1.59<br>Failed <sup>5</sup>                      |
| Hex(EAEAEA) | Ratio: 7.03<br>Passed <sup>6</sup>                      | Ratio: 4.92<br>AA <sup>1</sup><br>AAA 18pt <sup>4</sup> | Ratio: 3.42<br>AA 18pt <sup>2</sup> | Ratio: 2.43<br>Failed <sup>5</sup> | Ratio: 1.76<br>Failed <sup>5</sup>  | Ratio: 1.32<br>Failed <sup>5</sup>                      |                                                         | Ratio: 1.20<br>Failed <sup>5</sup>                      |
| Hex(FFFFFF) | Ratio: 8.45<br>Passed <sup>6</sup>                      | Ratio: 5.92<br>AA <sup>1</sup><br>AAA 18pt <sup>4</sup> | Ratio: 4.12<br>AA 18pt <sup>2</sup> | Ratio: 2.92<br>Failed <sup>5</sup> | Ratio: 2.12<br>Failed <sup>5</sup>  | Ratio: 1.59<br>Failed <sup>5</sup>                      | Ratio: 1.20<br>Failed <sup>5</sup>                      |                                                         |

Details can be found at <https://www.w3.org/TR/WCAG20/>.

<sup>1</sup> AA

AA level of the Web Content Accessibility Guidelines (WCAG) 2.0 for any text size.

<sup>2</sup> AA 18pt

AA level for large text above 18pt.

<sup>3</sup> AAA

AAA level of the Web Content Accessibility Guidelines (WCAG) 2.0 for any text size.

<sup>4</sup> AAA 18pt

AAA level for large text above 18pt.

<sup>5</sup> Failed

Fails to comply with the Web Content Accessibility Guidelines (WCAG) 2.0.

<sup>6</sup> Passed

Passes the AAA level of the Web Content Accessibility Guidelines (WCAG) 2.0 for all text sizes.

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