**Visual Contrast Method**

**Test & Audit**

**Visual Contrast of Text**

Provide sufficient contrast between foreground text and its background.

**Method 1 Use default font characteristics**

Content uses default user agent (e.g. browser) colors for text and the text background and does not rely upon technology, such as CSS, that changes those defaults.

* See [G148](https://urldefense.proofpoint.com/v2/url?u=http-3A__w3.org_wai_wcag21_techniques_general_g148.html&d=DwMGaQ&c=jf_iaSHvJObTbx-siA1ZOg&r=O4GqIExuqcdLwnUGEjvgSq08AYAj0SMVYacBFPfUo5Y&m=-sU2MeAYdtcjUu5EcBpSkg8HFenzp_MZ6C0UgOm6B4I&s=MEwBdika5OkBqcVNjEm-rc1ivC2YHFPCLkqIpYKmtss&e=)

**Method 2 Use contrast checking tool**

**Procedure**

1. Use a source code inspection or an “eye dropper” type tool to obtain representative sRGB values for the foreground text and the background color.
2. Calculate the relative luminance of the text (*Rt*) and background (*Rb*).
3. Calculate the relative contrast of *Rt* and background *Rb*.
4. Compare this calculated value against the [lookup table](https://urldefense.proofpoint.com/v2/url?u=https-3A__docs.google.com_document_d_1lmTpfgublIqRggMVbrwo55FMlyJo3Avp-5FTAvpuFttxI_edit-23heading-3Dh.2mo797dqaowo&d=DwMGaQ&c=jf_iaSHvJObTbx-siA1ZOg&r=O4GqIExuqcdLwnUGEjvgSq08AYAj0SMVYacBFPfUo5Y&m=-sU2MeAYdtcjUu5EcBpSkg8HFenzp_MZ6C0UgOm6B4I&s=a6a7QoQDeXiV2m3Dy76vkr1Y-RLCCjOi1xIytxqBsgY&e=).
5. Check that the relative contrast ratio meets or exceeds the required value.

**Expected Results**

* #5 is true.

**Glossary**

relative luminance

the relative brightness of any point in a color space, normalized to 0 for darkest black and 1 for lightest white

Note:

For the sRGB color space, the relative luminance (*L*) of a color is defined as *L* = 0.2126 \* **R** + 0.7156 \* **G** + 0.0722 \* **B** where **R**, **G** and **B** are defined as:

* **R** = RsRGB ^ 2.218
* **G** = GsRGB ^ 2.218
* **B** = BsRGB ^ 2.218

and RsRGB, GsRGB, and BsRGB are defined as:

* RsRGB = R8bit/255
* GsRGB = G8bit/255
* BsRGB = B8bit/255

The “^” character is the exponentiation operator.

relative contrast

The perceived relative visual contrast (*P*) between a foreground color and a background color expressed as a percentage is defined as:

* if **Lf** < **Lb** then *P* = ( **Lf** ^ 0.40 − **Lb** ^ 0.44 ) \* 161.8
* else *P* = ( **Lb** ^ 0.44 − **Lf** ^ 0.40 ) \* 161.8

where

* **Lf** is the relative luminance of the foreground color, and
* **Lb** is the relative luminance of the background color.

Note:

Relative contrast ranges from 0 to ???? and 25% is the point of invisibility (*i.e.*, no perceptible contrast) for many people.

The “^” character is the exponentiation operator.