## Environment

Reference: <https://material.io/design/environment/surfaces.html>

|  |  |  |  |
| --- | --- | --- | --- |
| Number | Aspect | Illustration | Rule |
| E1 | Dimension |  | Material has varying x & y dimensions (measured in dp) and a uniform thickness (1dp) |
| E2 | Shadow |  |  |
| E3 | Resolution |  | Material has infinite resolution |
| E4 | Content |  | . |
| E5 | Content |  |  |
| E6 | Content |  |  |
| E7 | Physical Property |  |  |
| E8 | Physical Property |  | Material overlapping should generate shadow |
| E9 | Physical Property |  | Material enters and exits through changes in opacity, size, or position but not shape.  Shape behavior should not like liquid or gel either. |
| E10 | Physical Property |  | Material surface cannot pass through another Material surface when changing elevation |
| E11 | Material Transformation |  |  |
| E12 | Movement |  | Material motion along the z-axis is typically a result of user interaction |
| E13 | Attribute |  |  |
| E14 | Attribute |  | Foreground content attracts more attention when background content displays a scrim |

## Typography

Reference:

<https://material.io/design/typography/the-type-system.html#applying-the-type-scale> <https://material.io/design/typography/understanding-typography.html#readability>

|  |  |  |  |
| --- | --- | --- | --- |
| Number | Component | Illustration | Rule |
| T1 | Subtitle |  | Use caution when using expressive fonts for subtitles |
| T2 | Body |  | Don’t use expressive fonts for body text |
| T3 | Caption and overline |  | Don’t use expressive fonts for an overline |
| T4 | Caption and overline |  | Caption and overline text (text with a line above it) are the smallest font sizes |
| T5 | Button |  | Use caution when having button text appear distinct from non-interactive text, such as this upper lower, sans serif typeface on a button |
| T6 | Button |  | Button text is typically an all caps sans serif |
| T7 | Button |  | Don’t use a display style for button text |
| T8 | Body Text - Line Length |  | Line lengths for body text are usually between 40 to 60 characters |
| T9 | Body Text - Line Length |  | In areas with wider line lengths, such as desktop, longer lines that contain up to 120 characters will need an increased line height from 20sp to 24sp |
| T10 | Body Text - Line Width |  | 1. Type size 14, Line-height 20dp; 2. Type size 20, Line-height 28dp |
| T11 | Body Text - Paragraph Spacing |  | Keep paragraph spacing in the range between .75x and 1.25x of the type size |
| T12 | Font |  | Native system typefaces should be used for large blocks of text and any text below 14sp |