Specified vs. Perceived Colour

Strategies to manage factors that impact interior and exterior colour

Zena O'Connor

Specified Colour vs. Perceived Colour

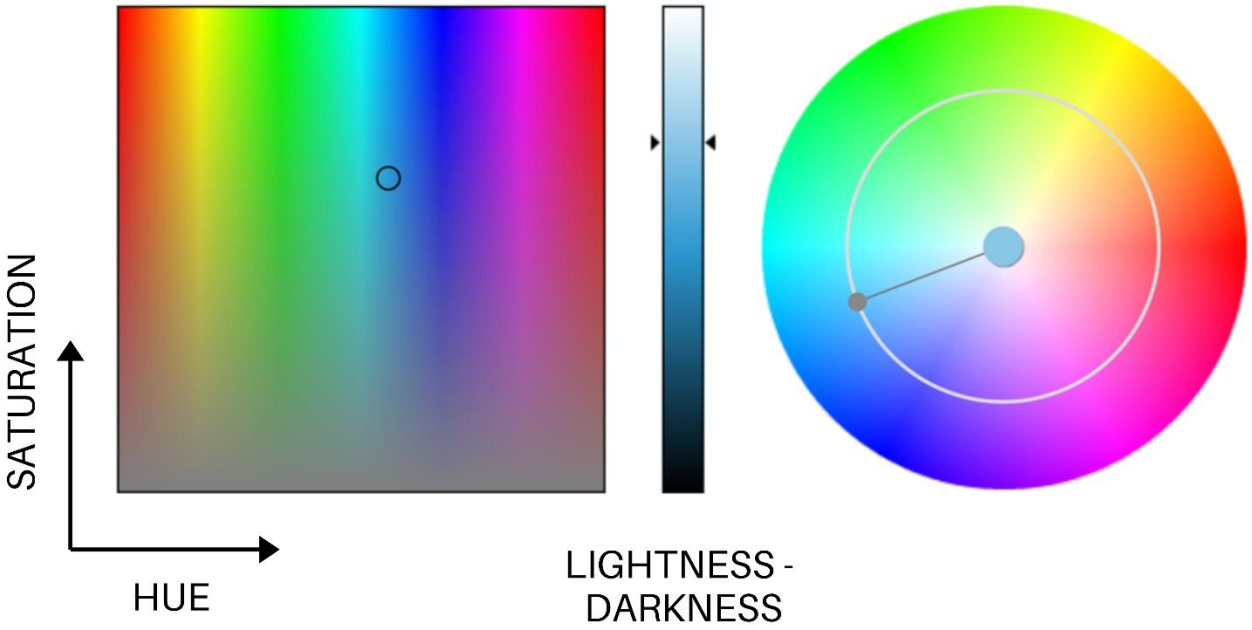
Colour scheme specification can be problematic

There are many factors that impact colour in the built environment

Colour is a complex phenomenon

Colour attributes: Hue, saturation, and tonal value

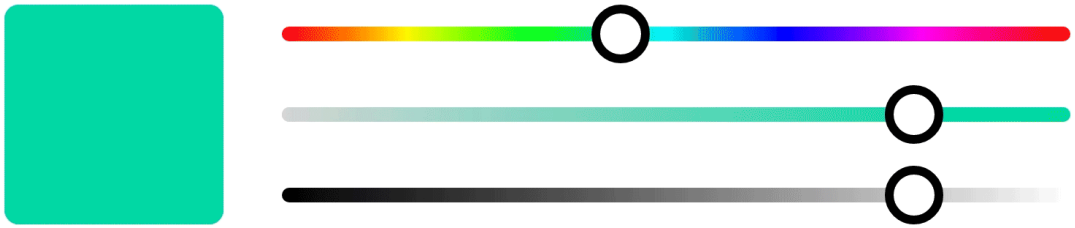
We can perceive between 1.8m-10m colour nuances



Colour specification for the built environment

The process of colour scheme development can become complicated

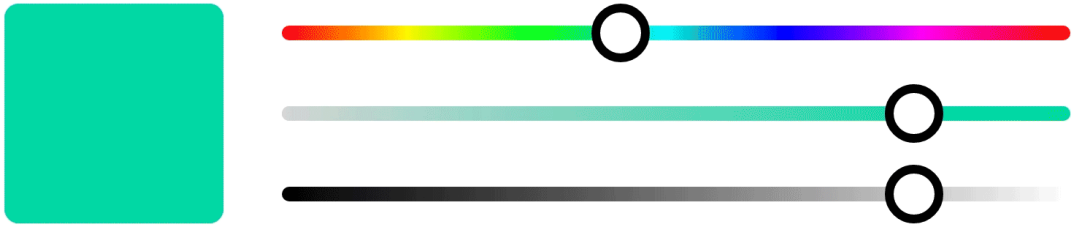
- Complexity of colour

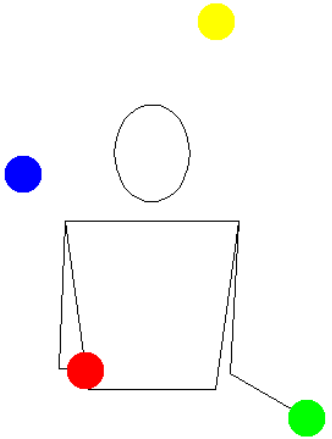


Colour specification for the built environment

The process of colour scheme development can become complicated

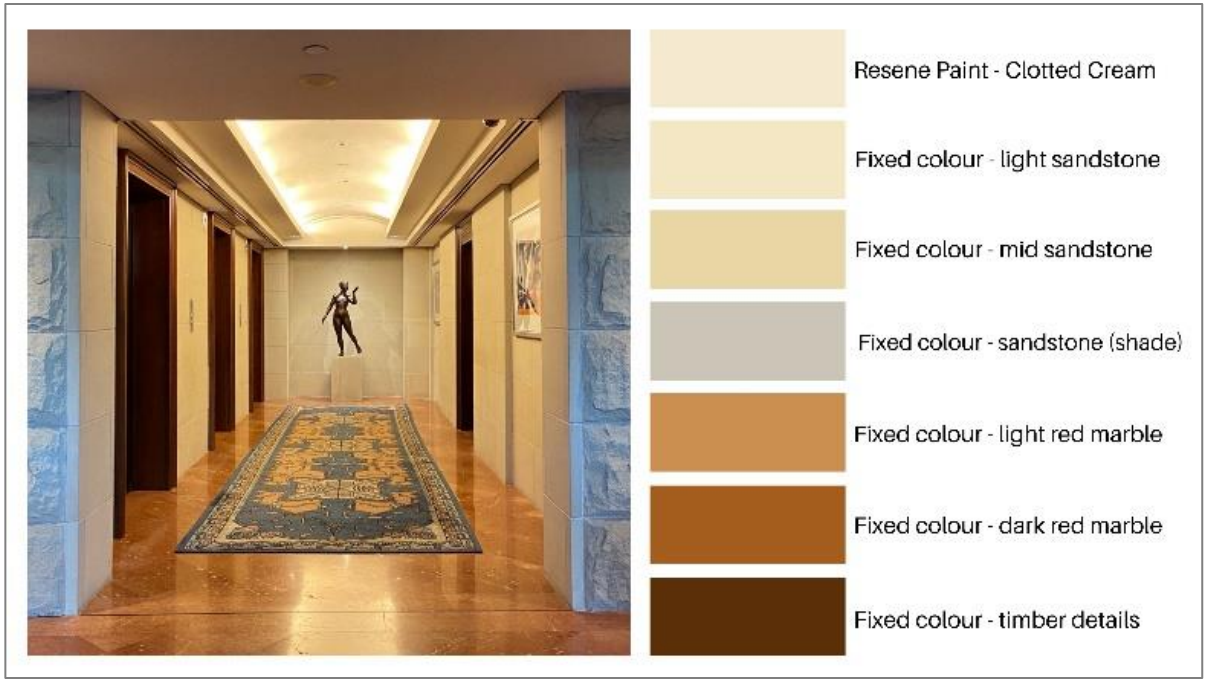
- Complexity of colour
- Specified colour options
- Factors that impact perceived colour
- Client aims and agenda





Environmental colour mapping – interior & exterior

This process documents the existing fixed colours as well as the variable colours – painted surfaces.



Environmental colour mapping – interior & exterior

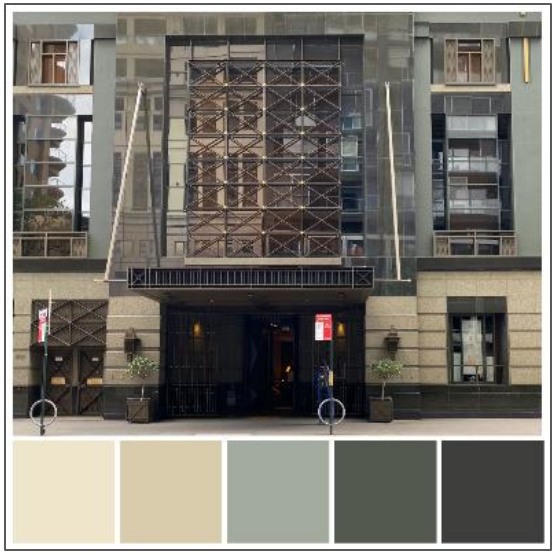
An example of the complexity of developing façade colour options is a recent project in Sydney.

Environmental colour mapping – interior & exterior

Colour mapping – a starting point when aiming for differentiation and distinction using façade colour.

Environmental colour mapping – interior & exterior

Façade colour specification needs to address paint colour undertone and contextual simultaneous contrast as these will impact Perceived Colour



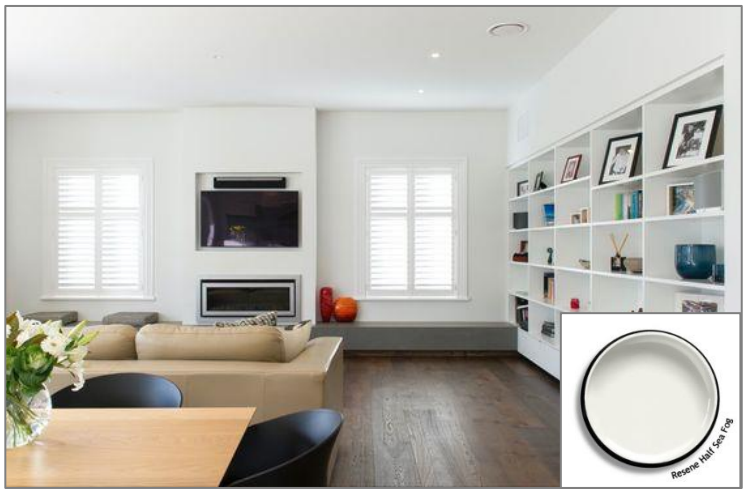
Undertone

Paint colour undertone is a key factor when specifying interior or exterior colour scheme options

Undertone

Whites invariably feature an undertone that may vary from warm colours through neutral to cool colours.

Resene Albescent White
Warm colour undertone

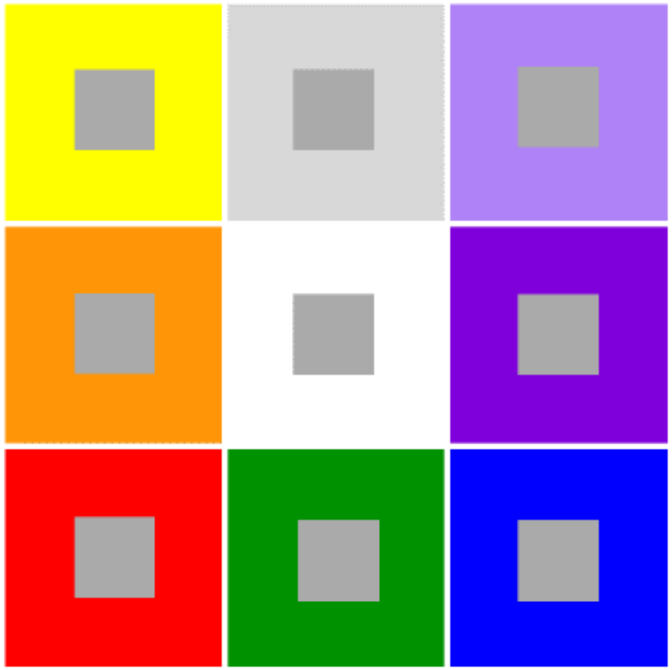


Resene Sea Fog, Half Sea Fog, Quarter Sea Fog
Neutral colour undertone

Resene Rice Cake
Cool colour undertone

Simultaneous Contrast

Simultaneous contrast occurs when contextual colour impacts the perception of colour

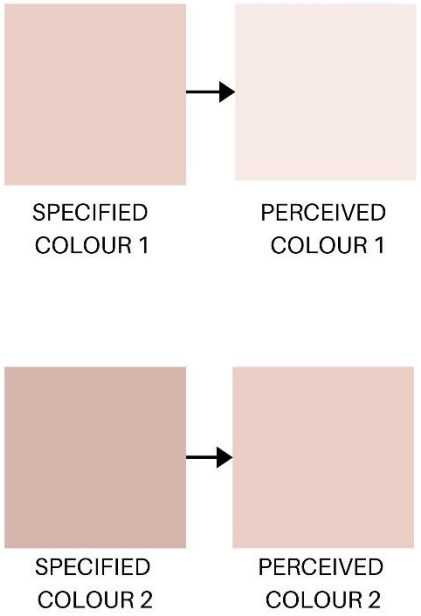


Simultaneous Contrast

Simultaneous contrast can occur in interior spaces – impacting the appearance of Specified colour

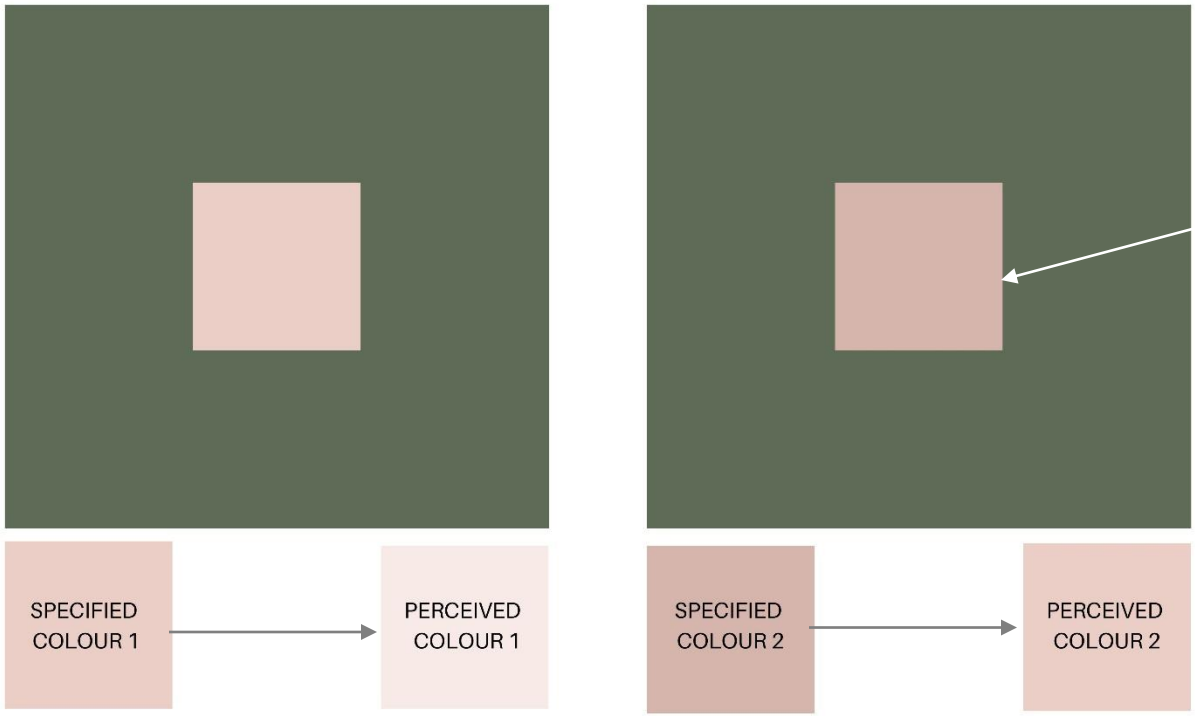
Simultaneous Contrast

Simultaneous contrast can occur with building façade colour – impacting the appearance of Specified colour



Simultaneous Contrast

Variations between Specified and Perceived Colours



Specified Colour needed to be slightly darker to achieve client's preferred Perceived Colour

Light Reflectance Values

All paint colours have an inherent Light Reflectance Value – lighter colours have a higher LRV and darker colours and black have a low LRV

Light Reflectance Values

Resene have developed CoolColour technology to address this issue – paint that absorbs less heat

Light Reflectance Values

Changes the ambience and increases or reduces the amount of reflected light

Lightens or darkens the appearance of other surfaces

Reflected Colour

The impact on interior spaces – changes the ambience and imbues an interior with a colour ‘wash’

Texture and Paint Gloss Levels

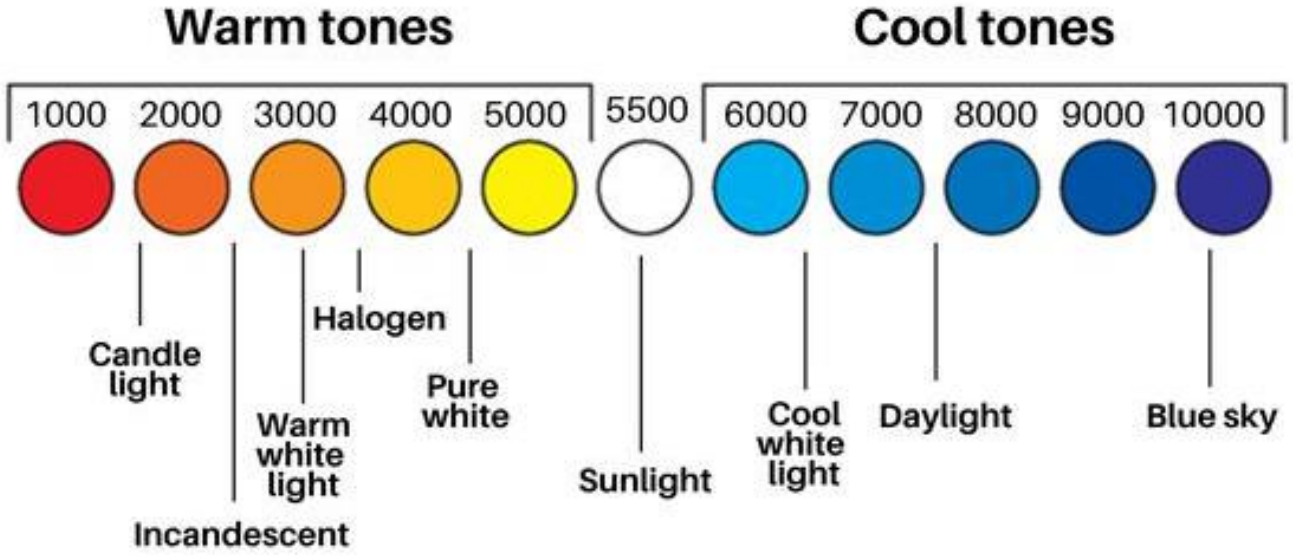
Any variation of rough surface will cause even the slightest of shadows to occur and these will darken the appearance of Specified Colour

Texture and Paint Gloss Levels

Variations in gloss level will inevitably reflect both artificial and natural light – causing changes in the appearance of Specified Colour.

Variations in Ambient Lighting

Natural and artificial lighting varies in colour tone, impacting the appearance of Specified Colour

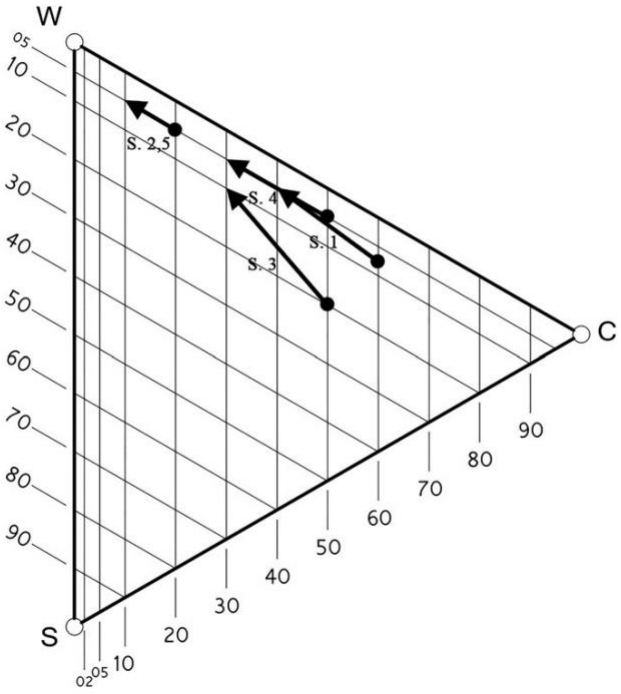


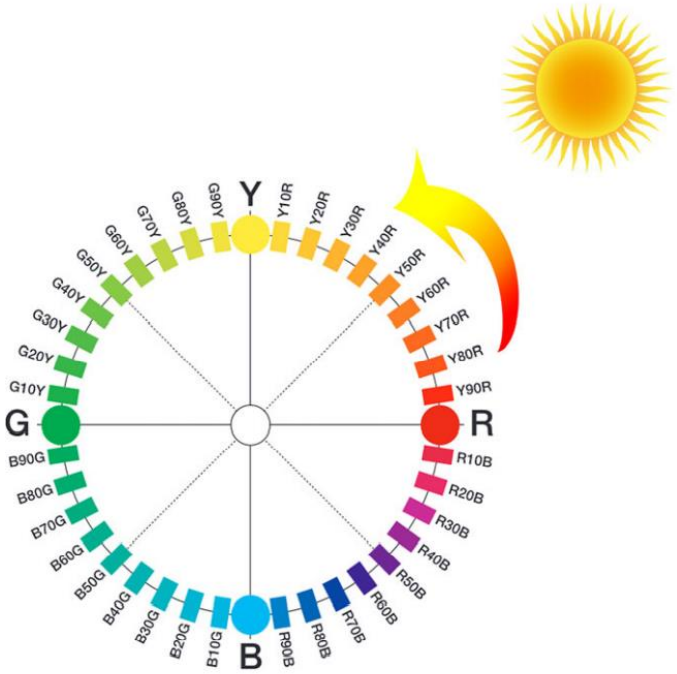
Variations in Ambient Lighting

Different colour tones of artificial lighting not only change the appearance of Specified Colour but also change the ambience of interior spaces

Variations in Ambient Lighting

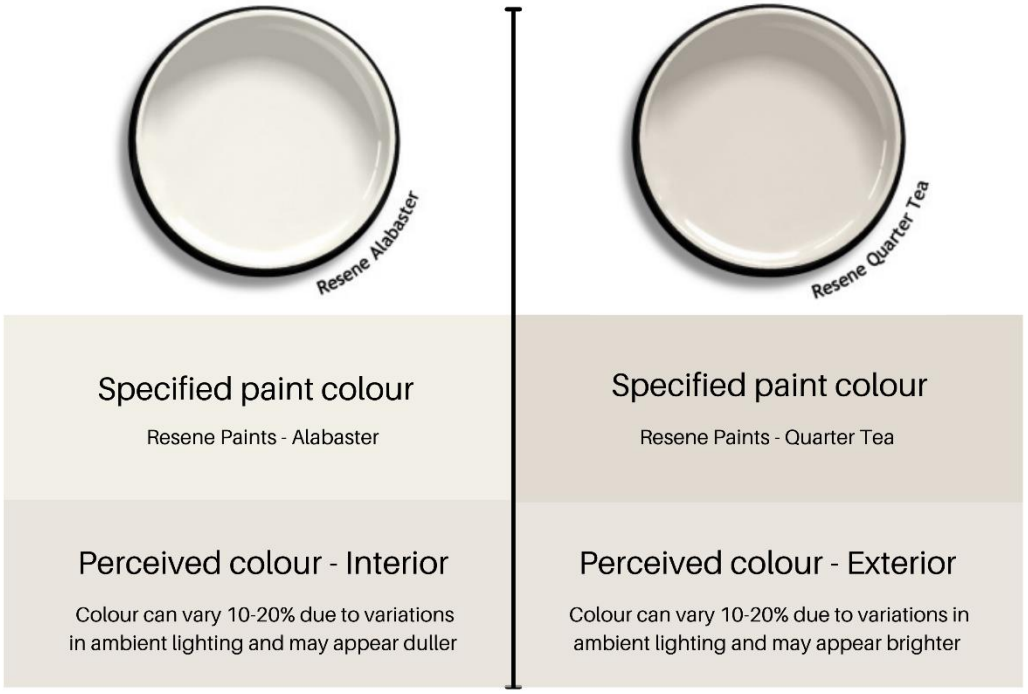
Direct sunlight has a strong impact on Specified Colour making it appear 20-25% more whiteish and making a pale colour appear up to 20% more yellow





Variations in Ambient Lighting

Adjust Specified Colour to allow for potential variations in interior and exterior ambient lighting



Aspect

Adjust Specified Colour to allow for potential variations in interior and exterior ambient lighting

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