



Resene Paints Limited

# Architects Memo

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## SENSATIONAL COLOUR

The title 'Sensational Colour' describes, not some fantastic new hue, but the rather sober fact that colour refers to sensations aroused in the mind of the normal observer by the response of the retina of the eye and its attached nervous system to radiant energy of certain wave lengths and intensities.

Without an instrument responsive to these stimuli (i.e. the eye) there is no such thing as colour. The expression 'normal observer' has been used but this of course is somewhat vague. There can be no certainty that any two people see a colour in exactly the same way. One can quote the obvious example of colour blindness but this is probably an extreme example of many slight differences that exist between normal observers.

In order to observe colour, one must have light. We all know that colour shows up best in broad daylight. As evening falls, colour becomes more and more indistinguishable until a point is reached at which objects look either black or grey, even though there is still enough light to observe them. Even daylight varies considerably in spectral distribution so that colours look different in direct sunlight than in light from an overcast sky.

When colours are viewed in artificial lights, differences become even greater. For instance mercury vapour lamps being high in blue wave length light, makes everything look bluer when viewed by it. Sodium lamps on the other hand are high in yellow wave length light and cast a yellow glow.

The surface texture of an object also affects the way colour is perceived. If two paints are produced with exactly the same colour make-up, but in a flat and a gloss, the gloss will appear richer, brighter and more intense than the flat. The somewhat milky, dead appearance of the flat can be made to match the gloss simply by overcoating with a clear gloss; i.e. changing the surface texture will change the colour.

Colour perception is affected by the background on which it is viewed and also the size of the object viewed. The smaller the size of the coloured object the less one is able to distinguish the colour. The following sized colour chips are preferred for evaluating colour:

Approximate evaluation	14.5 sq. cms.
Guide	24.2 sq. cms.
General evaluations	130.6 sq. cms.
Critical evaluation	440.3 sq. cms.

If the Resene BSS 5252 colour card was made of chips suitable for critical evaluation, the dimensions of the card would be 3.65 metres x 12.63 metres - not the most practical size in the world! It was however, because of the need for large samples for critical evaluation that Resene developed the concept of Test Pots.

Resene Test Pots provide enough semi gloss water based paint to cover nearly one square metre, over twenty times the area needed for critical evaluation. This makes possible the viewing of a colour on site where individual interpretation can be confirmed.

Because the BSS 5252 range of Test Pots has proved so popular, Resene have now expanded the Test Pot range to include the British Standard 101 range. It should be noted that where a colour, common to both ranges is required, it will be supplied in the 5252 description. It is intended that before next Summer, Resene Exterior Linseed Oil based Timberstain will also be available in Test Pots.

With the addition of the BSS 101 range, Resene Test Pots are now available in over 300 colours.

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