



# A STEP BY STEP GUIDE TO SHADE MATCHING

## WHAT YOU'LL NEED

### A SHADE SELECTION GUIDE RECOMMENDATIONS:

- Vita
- Vita 3-D
- Chromoscope
- Bleached guides
- e.Max shade guide

## REMEMBER!

View patient at eye level

Shade determination should be made at the beginning of the appointment

Make a decision as quickly as possible



## THE ENVIRONMENT

## HELPFUL TIPS TO MAXIMIZE COLOR ACCURACY

- If needed, use a blue bib to relax your eyes
- Teeth should be clean (have patient remove lipstick and brush teeth)
- No bright colors in the immediate field of view
- Wear neutral-colored gloves
- Subdued wall color if possible (preferably greyish to slate blue)

## BE SURE!

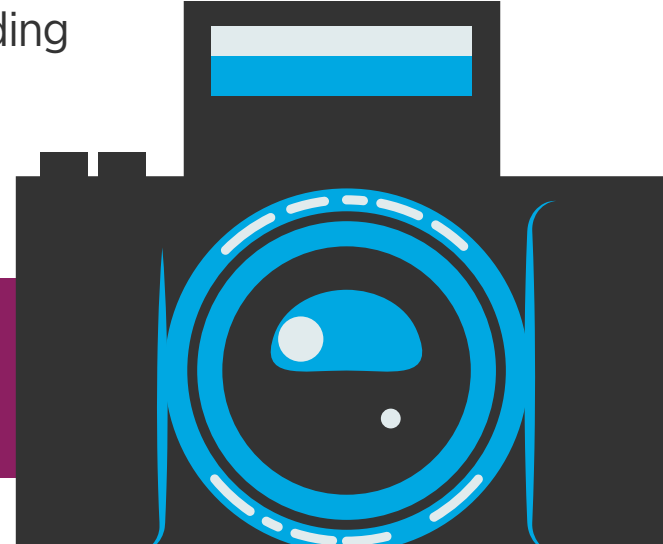
From floor to ceiling, the entire room or setting should have a neutral light gray background, not white. A patient's lipstick, clothing, and clinical drape also can adversely affect color perception.

## LIGHT SOURCE

### NOTE!

The light source will dramatically affect shade. The operatory light should not be pointed directly at the patient.

- Indirect lighting with fluorescent bulbs at 5500 Kelvin color temperature
- Color corrected with a full visible spectrum range
- Enough intensity to eliminate ambient light, but not so strong as to mask the color differences
- Pleasant to the eye to deter fatigue
- Consistent in that it does not change depending on the time of day or location



## KEY ASPECTS OF IDEAL LIGHT FOR SHADE MATCHING INCLUDE:

## USING PHOTOS

### FOR OPTIMAL RESULTS

the following steps should be followed:

## REMEMBER!

Photographs are not accurate or sufficient in color replication, but they can be useful for determining gradation and characterization.

### ONE

Always have a shade tab in the photo so the technician can compare the difference in the Value and Chroma and make the needed adjustments.

### TWO

Use a camera with a macro lens and ring flash. This will allow you to get a closer and more detailed photo without having the flash alter the shade.

### THREE

If your camera doesn't have a ring flash, have the patient sit up with their chin slightly tucked in. This will help keep the flash from reflecting in the picture.

### FOUR

Use a room with some natural light if possible and avoid pointing any light directly toward the patient.

### FIVE

It is essential that color selection is done when the patient is first seated in the dental chair as Chroma and Value can change due to minor dehydration.

### CHROMA

The purity of a color  
**High chroma** colors look rich and full.  
**Low chroma** colors look dull and grayish. Sometimes chroma is called saturation.

### VALUE

Value, or lightness, varies vertically along the color solid, from black (value 0) at the bottom, to white (value 10) at the top. Neutral grays lie along the vertical axis between black and white.

## COLOR PERCEPTION

## TYPES OF COLOR BLINDNESS

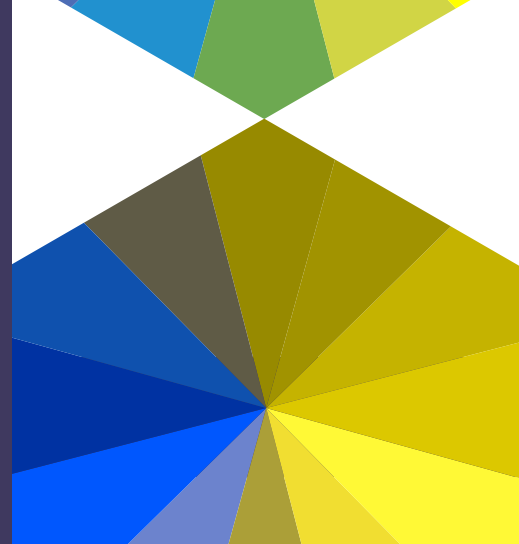
Color perception varies from fractionally to drastically by individual depending on their vision.

### FACT!

Women are far less likely (.5%) to be color blind than men (8%). Doctors and technicians should take a color vision deficiency test such as Ishihara or Farnworth Lantern annually as vision can change.



NORMAL VISION



DEUTERANOPIA



TRITANOPIA



PROTANOPIA