



TAKING SHADES



A Useful Guide to help increase communication, improve quality, and minimize adjustments

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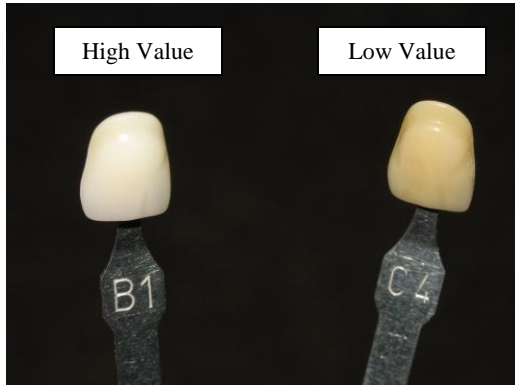
Important Shade Terminology

Hue- The name of the color (red, yellow, orange, blue)

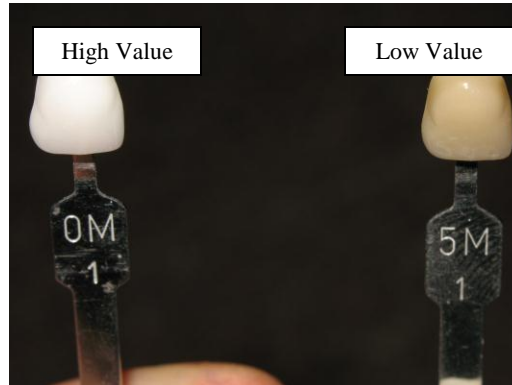
Chroma- The intensity or saturation of the color/hue. Example: B1 and B3 are the same “B” hue but B3 is higher in chroma saturation than B1.

Value- Is the lightness or grayness. Value ranges from black which is the lowest value (mostly grey) to white which is the highest value (mostly white.)

Translucency in a tooth exhibits a grey tone, so the more translucent a tooth, the lower the value.



B1 is high value because it is bright with very little grey. C4 is low value because it is predominantly grey.



OM1 is high value because it is bright. OM5 is low value because it is grey.

It is important to have adequate tooth reduction to achieve low value shades. Under-reduced preps always seem bright or high in value.

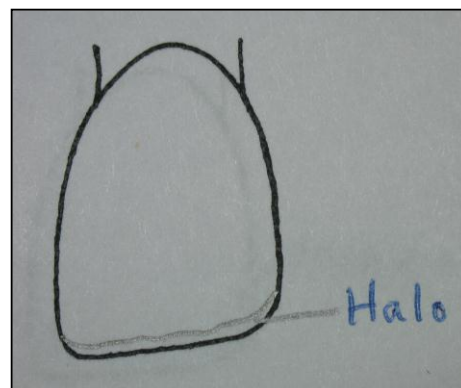
Important Color Characteristics Beyond The Shade Guide

*These need to be described and diagramed for the lab.

Halo- A color characteristic found at the incisal edge of anterior teeth. It forms a more milky whitish or yellowish area at the outermost edge of the tooth. It is made visible because it butts to a more translucent area forming a color demarcation.



Whitish incisal edge **halo** outlining a bluish translucency

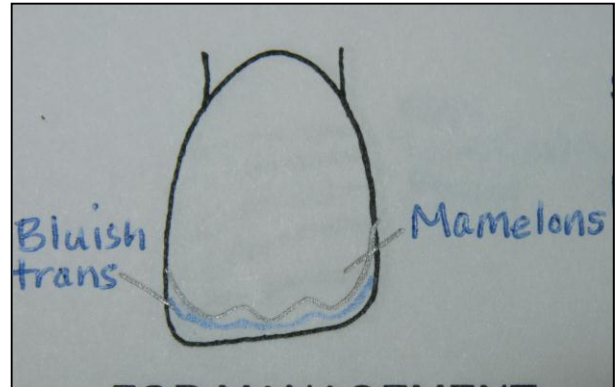


Sample drawing of **halo** to communicate to lab. Specify color. Send photo.

Mamelons- the inner lobe structures of anterior teeth. Often seen as three inner lobes that have a more opaque color. Mamelons are encapsulated by the lower value translucent enamel/incisal.

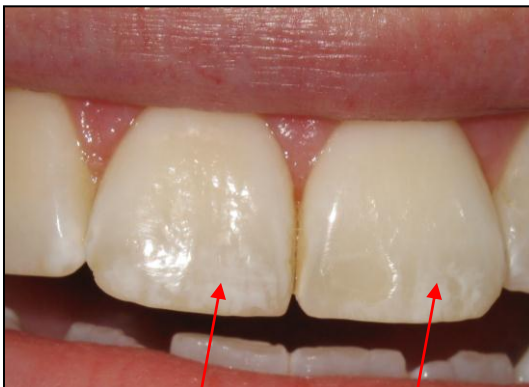


Inner **mamelon** lobes adjacent to a bluish translucency.

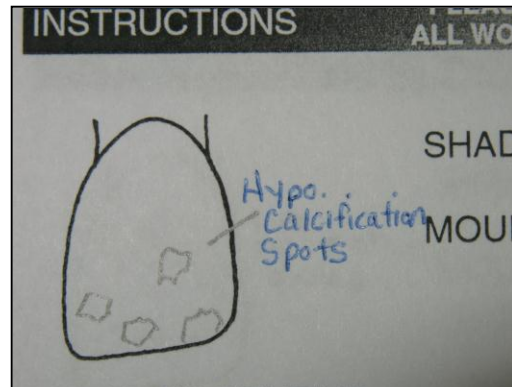


Sample drawing of internal **mamelon** lobes to communicate to lab. Diagram all colors. Send photo.

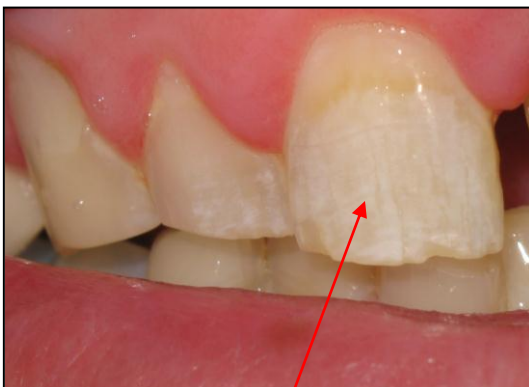
Hypo-calcifications- Also called decalcifications; they are white opaque mottling areas on the surface of the tooth. They can be spots or horizontal bands.



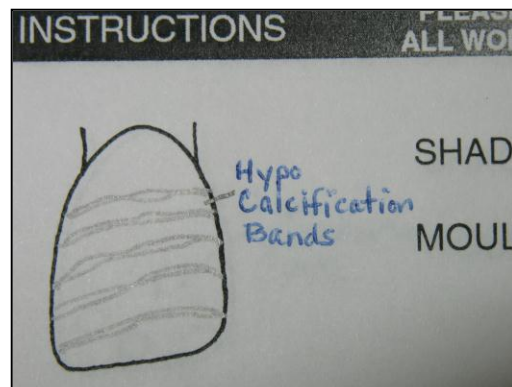
Hypo-calcification spots on surface of centrals.



Sample drawing of **hypo-calcification spots** to communicate to lab. Send photo.



Hypo-calcification bands. Notice the horizontal curves.



Sample drawing of **hypo-calcification bands** to communicate to lab. Send photo.

1. Important- Take the Shade First

Take shade before any procedure while teeth are fully hydrated. Teeth dehydrate very quickly when the mouth is open. Within a couple of minutes, a dry tooth can appear two shades lighter than it actually is.

- Don't send patient to the lab for a shade consult after prepping teeth
- It can take up to 3-7 days for a tooth to re-hydrate completely, depending on the length and type of procedure that was done.

2. Neutralize the Shade Zone

Shades are affected by the color of the operatory, color of lipstick, color of clothing, etc.

- Take shades in a neutral color room of a light gray, light blue, or white
- Drape patients clothing with light blue/gray
- Remove patients lipstick

3. Use a Natural Light Source

- Use color corrected fluorescent bulbs
5500 Kelvin color temperature
1600 Lux -2100 Lux intensity (150-200 foot candles)
90+Color Rendering Index (CRI)
- Check shade in different light sources

4. Start by Using The Two Most Important Shade Guides

Vita Classical/ Lumin Vacuum (A1-C4)

This is the most popular shade guide but it is important to note that it was invented decades ago for denture teeth. Due to this, it is only accurate 60% of the time matching natural dentition. However, it is good when matching denture, partial teeth, and existing crowns considering this was probably the shade system used.

- Select Value(grayness/ lightness)- Squint to detect
- Select Chroma (color saturation)- Scan guide. Don't stare
- Select Hue(color)-Glance at guide and tooth and rest eyes on patients bib
- Keep teeth moist by having patient lick teeth often

Vitapan 3D-Master (OM1-5M1)

This is the most accurate shade guide and essential in the armamentarium.

It is a shade system which covers virtually all tooth shades in nature. **If you don't have it, you need it!**

- Follow instructions that come with guide
- Keep teeth moist by having patient lick teeth often

For All Ceramics: After preparation, take stump shades and photos in the same way as above. Use either stump shade guide such as the Ivoclar Vivadent's IPS Natural Die Material Shade Guide (several manufacturers offer these) or regular shade guides.

5. Take Photos

Take at least two photos. Take one close-up of just teeth, canine to canine. Take another close-up with shade tabs in place. Use the closest shade tab or tabs to the desired color and we'll be able to duplicate or modify our crown accordingly.

- Hold shade tab in photo and make sure # is visible
- After taking photos make sure they're clear in your digital viewfinder
- Send hard copies or email to tonyartistic@wowway.com



We can see from the photo that the 1M1 is correct. We can also see that we need to add the character that is in the incisal third such as blue translucency and internal mamelon lobes. Photos and a detailed diagram are critical



In this photo we are using the 2L1.5 for the middle of tooth. We are using a shade slightly lighter than 2L2.5 for the cervical/gingival 1/3 and the incisal 1/3. We will also add the bluish translucency on the mesial and distal that is evident in photo.

6. Draw Detailed Shade Mapping

- Draw on lab RX or a separate sheet. Colored pencils (with description) are helpful for teeth with multiple colors.

7. Send Patient to Lab for Custom Shade Consultation



Custom shade duplication and ceramic artistry by Tony Astorino