

Ragle

Clear Match

Clinical Procedure for Taking
Accurate Shades using the
Clear Match™ process

About Clear Match™

- Color mapping software eliminates expensive devices.
- Shade can be matched from any digital photo.
- Easy to use with B/W computer adjustment tab.
- Use of a Lumin A-2 tab as the common shade guide allows the software to calculate an exact shade map.



Software used by Ragle along with Canon's 10D digital camera

Sample 1

Photo of area to be restored



Close-up photo for detail



Photo with Clear Match black and white shade tab holder or referenced as the "B/W Standard"



Photo of a shade guide which closely resembles shade

File Edit View Image Tools Window Help

Summary Acquire Image Select Picture Process E-Mail Quality Control

Selected Picture:

Red:	199
Green:	159
Blue:	93

Secondary Picture:

Red:	172
Green:	155
Blue:	123

RGB Difference:

Red:	10.58%
Green:	1.56%
Blue:	11.76%
Total:	7.84%

HCV Difference:

Hue:	0.39%
Chroma:	20.39%
Value:	0.00%
Total:	6.66%

Software map of original photo and finished bridge. Note Value chart at 0.00%. This is an exact match in value. RGB Difference shows % of difference.

Final Restoration



Sample 2

Photo of area to be restored



Photo with B/W Standard



Photo with shade guide



Photo with shade guide

Sample 2

Special Considerations



Additional photos can be taken to point out esthetic needs and/or requests. Patient did not like fullness of temporaries. Left and right photos were taken to show technician.

Step-by-Step

- Take an open mouth photo.
- Take a close-up of adjacent teeth for detail.
- Take a photo using the B/W Standard holder with a Lumin A-2 shade tab in the Standard. Keep facial of tab facing camera.
- Match a commercial tab as closely to desired shade and photograph showing stem # for shade reference.
- Include any desired photos for particular reference to esthetic needs or concerns.
- Email all photos to photo@raglelab.com

Helpful Hints

- Take photos with tab as close as possible. Picking up 5-10 mm of B/W tab is all that is necessary in photo.
- Shoot photo above tooth. Have patient tilt head slightly down and tilt tab slightly up. This will eliminate most flash reflection.
- Always have tab facing camera.
 - E.g if taking a photo of a cuspid move into position and do not shoot down the arch from the anterior section. The same applies for centrals and laterals. Position tab under each tooth and face the tooth.
- Bright ceiling lights above the patient will reflect onto the B/W Standard holder. This will create the black to appear grey in the photo giving the software a skewed reference. Tilt the Standard down slightly to avoid this.
- Turn away or turn off overhead chair light