

DIGITAL SLR SHADE DETERMINATION AND CROSS POLARISATION

USAGE IN EVERYDAY DENTISTRY

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First photo is done with 100mm macro lens and twin flashes Second photo is done with 100mm macro lens, ring flash and cross polarised filter

It is important that the key guide to be placed paralel with the edge of the tooth and to have the same distance from the lens





GC Initial Zr-FS



Chosing the right shade for composit restoration with help of dental photography, cross polarised photo and editing software we can take three photos with diferent shade key ex. A1 A2 A3 than we can see the diference.

Shade taking





cross polarised photo Overall procedure will take about 5 min to take photos transfer them on PC and edit the RAW file on software, in this case you will have the opportunity to see the structure of the tooth and color in a big picture and make the difference between colors and choose the right one





Is very important to know the tooth structure and position of mamelons and translucency, that will help tecnicient and doctor to make undetectable prostetic or composit restoration, especially when we make single tooth restoration on front.

1.Canon: f/16 1/125 s ISO 100 100mm + cross polarisation ring flash 1/2, no RAW parameters was set. 2 Canon: f/16 1/125 s ISO 100 100mm + cross polarisation ring flash 1/2 RAW file: contrast +100, whites +15, blacks -51, shadows -100 clarity +100 vibrance -53 3.Canon: f/16 1/125 ISO 100 100mm Twin flashes 1/4 +7 no RAW parameters was set. 4.Canon: f/16 1/125 ISO 100 100mm Twin flashes 1/4 +7 RAW file: contrast +100, clarity +100 5.Canon: f/16 1/125 ISO 100 100mm Twin flashes 1/4 +7 RAW file: contrast +100. vibrance +100 6.Canon: f/16 1/125 ISO 100 100mm Twin flashes 1/4 +7 RAW file converted to grayscale.



One way to choose the right color or combination of colors on composite restoration is to make little buttons of diferent composite shades, light cure them, take photos transfer on PC and edit them on RAW file.



Conclusion : The usage of dental macro photography in combination with cross polarized filter and proper editing of Raw file allows us to see better the tooth structure and enables us a better communication with the laboratory, also it enables us to choose the natural forms same color and give us opportunities to make a hidden direct or indirect restorations.

References: Wolfgang Bengel, "Mastering digital dental photography" 2006 ; Serhat Koken , publications on facebook "Composite buttons".