

OPTISHADE
STYLE ITALIANO



English Booklet - BLUETOOTH VERSION

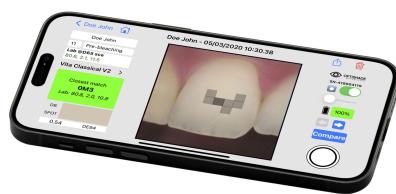


Other language
available here!

Smile Line ☺
powered by : **STYLEITALIANO**

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01 WHAT IS OPTISHADE

OPTISHADE is a unique and innovative dental colorimeter specifically designed to measure the color of teeth, dental restorations, restorative materials, and their visual appearance inside the mouth.

The anatomical Capture Guide Cone ensures reliable positioning and minimizes light contamination, allowing highly repeatable tooth color readings.

OPTISHADE is a shade reader that compares its measurements against a comprehensive database of commercial shade guides (see page 55). It is capable of giving numerical color coordinates in $L^*a^*b^*$ and $L^*C^*h^*$ with high accuracy and repeatability.

OPTISHADE works exclusively with an iPhone or iPad via an app available for free on AppStore.

Caution

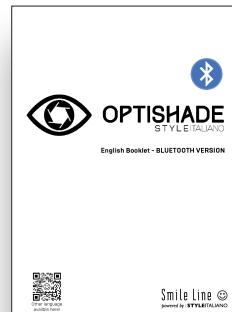
It is essential to read this booklet carefully and understand each section.

Your **OPTISHADE** is an advanced technology and very delicate device that needs to be manipulated with the greatest care. Any issue resulting from improper, careless, or abusive use of your **OPTISHADE** is not covered by the warranty (warranty : 1 year).

02 OPTISHADE KIT CONTENTS

- ① 1 assembled OPTISHADE unit with Capture Cone and Calibration Cap
- ② 4 capture cones
- ③ 4 calibration caps
- ④ 1 Instruction booklet
- ⑤ 1 USB-C charging cable
- ⑥ 1 USB-C to USB-A adapter

30 days free license Matisse



4



Note: OPTISHADE does not connect to your iOS devices via cable.

3

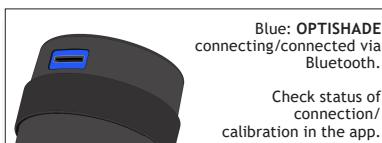
03 BEFORE FIRST USE

1. Fully charge the battery of your **OPTISHADE** thanks to the supplied USB-C cable. Only QC/PD18W chargers or above. Avoid using PC/Laptop/iPhone/iPad USB ports.

When battery is empty, a complete charge may take up to 3 hours. The battery is fully charged when the connector light turns green. In some cases, even after a few minutes of charging, the battery may still display 0%. This is due to the residual back-up battery charging first. When connecting or disconnecting the cable on your **OPTISHADE**, Always hold the connector head (not the cable) to avoid damaging the port.

2. In the AppStore download the free **OPTISHADE** by **STYLEITALIANO** App on your iPhone-iPad.

3. Charge **OPTISHADE** before and after each use.



Note: **OPTISHADE** has a residual back-up battery that has to be charged before measuring is allowed, it can take up to three hours charging if the battery is depleted.

It is normal that after a brief charge, connection is possible but still not possible to make measurements.

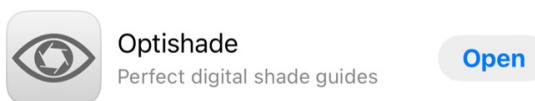
04 DOWNLOAD THE MAIN APP

In the AppStore download the **OPTISHADE** App (free) on your iPhone or iPad.

OPTISHADE App is compatible with all Apple devices running iOS/iPadOS 17 or higher. It is strongly recommended to use the latest iOS version for optimal and bug-free performance. **OPTISHADE** is NOT compatible with other operating systems.

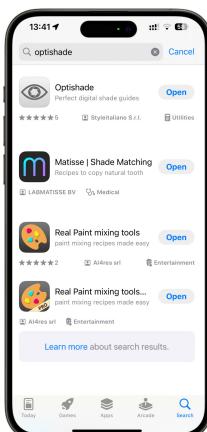


SCAN ME!



Optishade
Perfect digital shade guides

Open



The **OPTISHADE** app is free on the App Store. There are no in-app purchases or subscriptions.

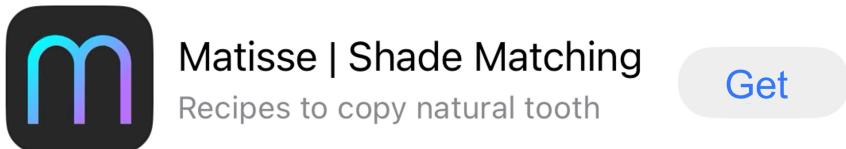
The **OPTISHADE** app does not track your activity or collect data.

The **OPTISHADE** app is the only application that operates the **OPTISHADE** hardware.

05 COMPATIBLE APP

In the AppStore search for the word **OPTISHADE**.

You will find all apps compatible with **OPTISHADE** files, which include ceramics, composites, and advanced color tools.



Matisse software is a complete software that provides recipes for ceramic crowns and veneers, following strategies as full layering, micro layering and staining (See page 59-62).

Matisse supports all major ceramic and staining brands used in clinical dentistry available in the market.

Find more information about the supported brands in the FAQ section www.matisse.ai.



Matisse iOS app and web app offer 30 Days Free Trial. Try it out and contact us via the chatbox on www.matisse.ai if you need assistance getting started.

To learn the Matisse and **OPTISHADE** workflow, you can also check the Youtube tutorials. Scan the QR code to visit the Matisse Shade Matching channel.



06 OPTISHADE PARTS

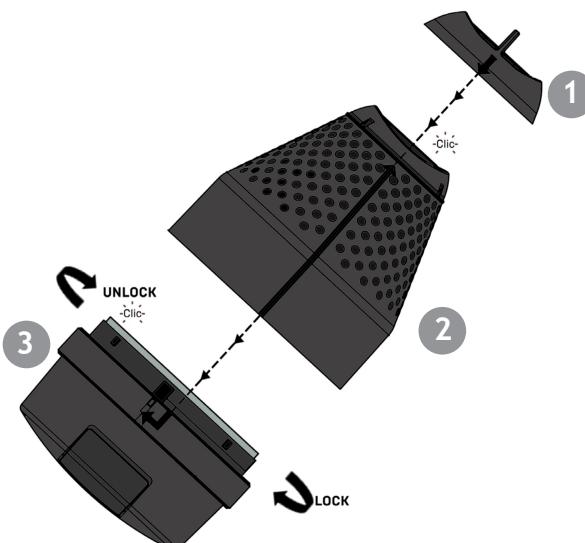
The Calibration Cap ① is snapped on the Capture Guide Cone ②. Gently lift it for removing it.

WARNING! The calibration card (white reference) is located inside the Calibration Cap. The calibration card is extremely fragile and sensitive. You should never touch it with your fingers or risk staining it. If you touch it with your fingers, please discard and use a new one. The Calibration Cap cannot be disinfected or sterilized. In case you are unsure about its cleanliness or in case of a risk of cross contamination, please immediately discard it and take a new one.

When the Calibration Cap is not used, save it in a bag protected from light or mount it onto the Capture Guide Cone.

The Capture Guide Cone is fixed by means of a bayonet mount system on the base of the **OPTISHADE** ③. For removing it from the base of the **OPTISHADE**, keep the base in one hand and gently rotate the Capture Guide Cone a few degrees anti-clockwise with your other hand. Now the **OPTISHADE** base separates easily. Never touch the glass with your fingers. Please ensure the glass is spotless and clean using a microfiber cloth.

WARNING! Never try to separate any of the components of the **OPTISHADE** base. Tampering with the seal voids the manufacturer's warranty.



Assembling



Reassemble now the capture guide cone on the **OPTISHADE** base.

1° make sure to align the polished longitudinal line of the cone with the **OPTISHADE** base and lock it by gently turning a few degrees clockwise.

2° on the capture guide cone, you'll see a polished line ending with an arrow. This arrow has to be aligned to the polished longitudinal line on the cone. Snap it on.

ATTENTION ! Each component has only one mounting position possible. It is recommended to train a little bit for a good understanding of mounting principles.

Charge

Once your **OPTISHADE** is assembled properly, charge it with the provided USB-C cable.

Be sure to insert and remove the connector along the correct axis without twisting it or creating lateral forces or constraints.



Calibration Card

The calibration card (white reference) is one of the most delicate components of **OPTISHADE**, even a single touch of the white card causes calibration inaccuracies.

Visual inspection of the card

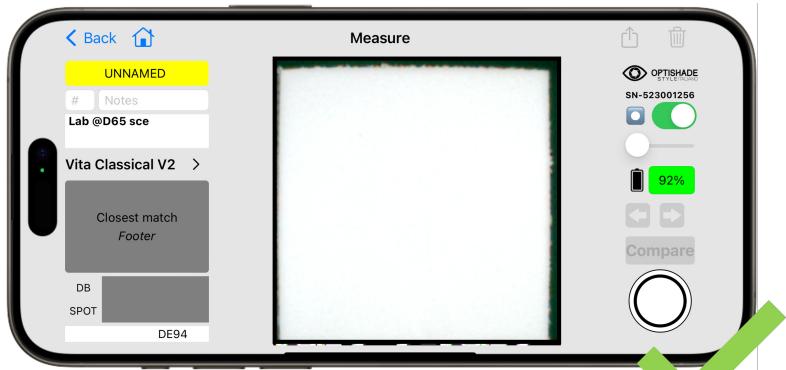
If you find dust, scratches or changes in the surface texture, shiny areas, color differences, replace the calibration cap with a new one.



To maintain maximum accuracy, change the calibration card frequently and/or every time there's damage risk or suspect. The only touch of a finger in the card can introduce a 0.5 DE Error.

Digital inspection of the card

While measuring, put the calibration card (white reference). If you find dust or scratches in the image, replace the card with a new one.



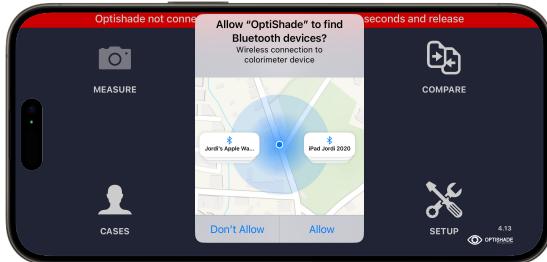
Card in good conditions



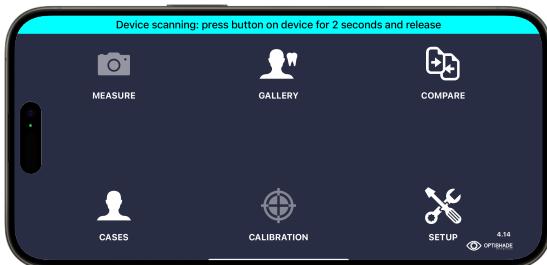
Card in bad conditions

07 OPTISHADE CONNECTION

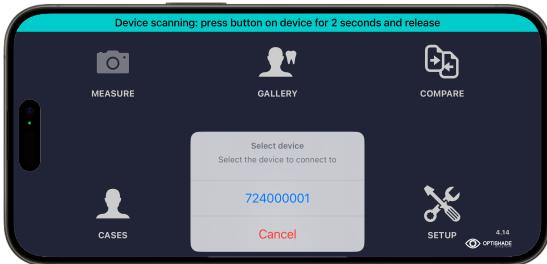
When you open the **OPTISHADE** app (version 4.15 or later), a message will appear asking permission to discover Bluetooth devices. It is very important to allow.



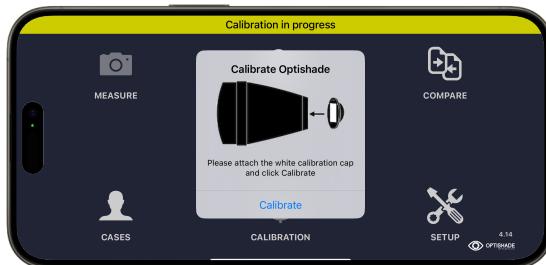
Once Bluetooth connection is allowed, the app will display a blue banner asking to “wake up” the device by pressing the button for 2 seconds and release.



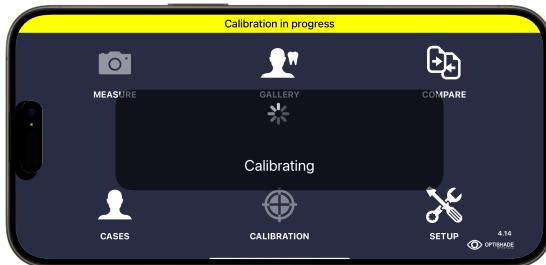
The first time you connect **OPTISHADE** wirelessly the app will ask you to select the device you want to connect and displays its serial number. Ensure it matches your device. Make sure the number matches your device. Click on the correct serial number for connection.



After selecting the correct device, a dialogue will appear asking to calibrate **OPTISHADE**.



Calibration in progress is displayed with a yellow banner. This process takes between 4 to 10 seconds.



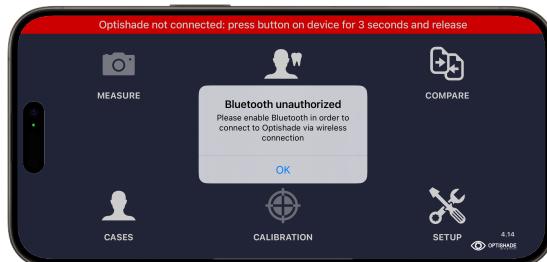
When the calibration is successful, the yellow banner turns green, and **OPTISHADE** will appear as connected and displaying the serial number, the type of connection and the battery level.



Bluetooth Unauthorized

Bluetooth access must be authorized for the app to function properly (see instructions below). When Bluetooth is unauthorized, **OPTISHADE** app can still be used with a Wired version of the device.

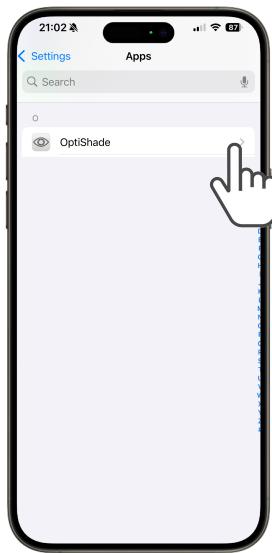
Note: the Bluetooth version of **OPTISHADE** does not support wired connections with iOS/iPadOS devices. For bluetooth authorization follow the steps in next page.



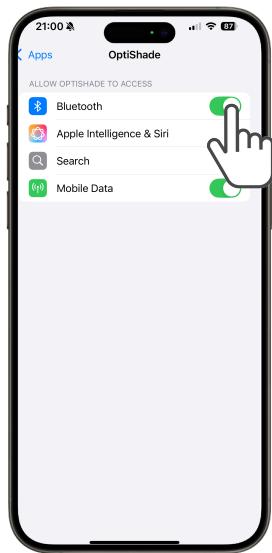
Authorize Bluetooth



Open iPhone/iPad Settings and scroll down to Apps.

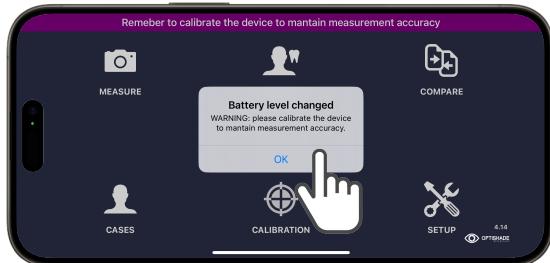


Scroll down or use the search bar to locate OPTISHADE.

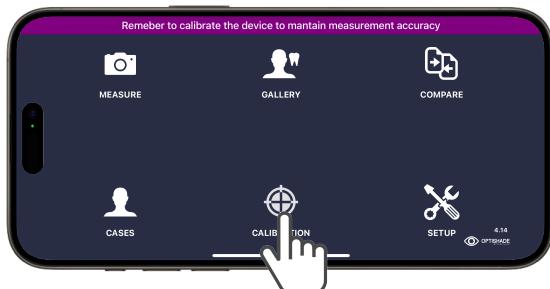


Inside the OPTISHADE app menu, activate Bluetooth.

Maintain Accuracy (Purple Banner)



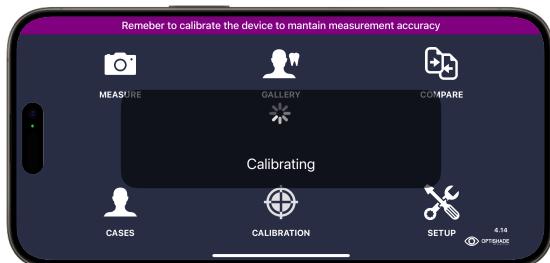
When battery level changes, the device must be recalibrated to maintain accuracy. If calibration is not done, a purple indicator will appear on the battery level icon, signaling that the measurement may be inaccurate.



After acknowledging the announcement, perform a calibration.

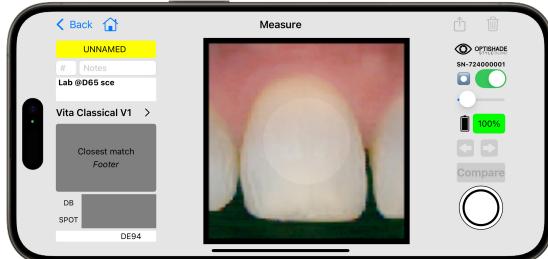


A pop-up will prompt you to calibrate OPTISHADE.

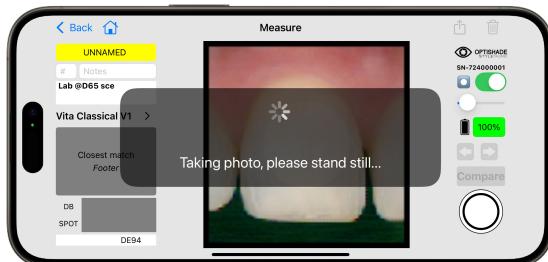


Calibration takes between 4 and 10 seconds.

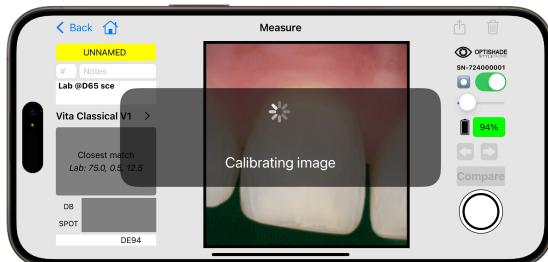
Preview



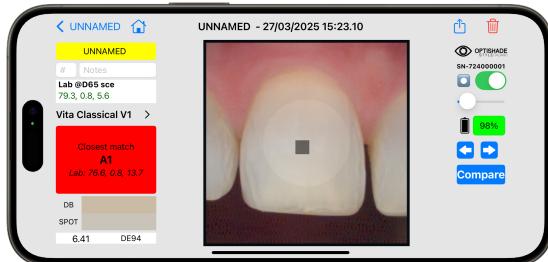
The resolution of the image before taking the picture is low and pixels can be detected. This does not affect performance or result quality.



Stay still while the app captures the picture. Any movement at this point can ruin the image.



After few seconds the image is captured and transmitted to the device. Once the banner displays “Calibrating Image,” it is safe to move the device.



The image is successfully captured and in full resolution in the screen.

Calibration failed

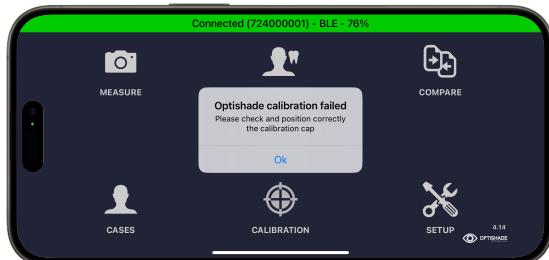
Reasons:

- 1-Calibration cap was not in place.
- 2-Calibration cap is damaged or dirty.
- 3-Battery has not enough charge.
- 4-Internal glass is dirty.

Solutions:

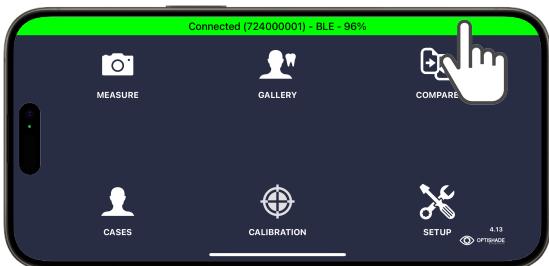
- 1-Ensure the calibration cap is placed correctly.
- 2-Replace calibration cap with a new one.
- 3-Charge battery.
- 4-Clean internal glass .

Repeat the calibration. If the issue persists, contact customer support.

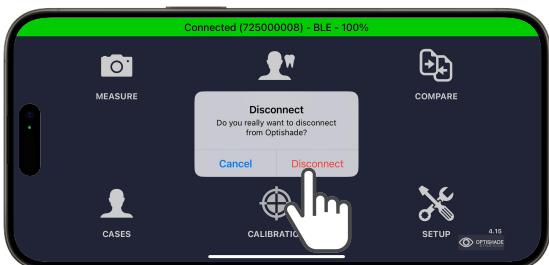


Disconnect OPTISHADE

Before connecting another unit, it is necessary to disconnect the current one. This is possible to do by clicking on the top banner or by holding the OPTISHADE button for more than 5 seconds.



At any moment of the connection, click on the top banner.



A pop-up will appear asking if you really want to disconnect from the **OPTISHADE** device.

5 seconds



08 CAPTURING A TOOTH COLOR

BEFORE measuring:

1. Make sure **OPTISHADE** is charged.
2. Connect and calibrate **OPTISHADE** (pages 8, 9, 10, 11 and 12).
3. Stay on the app's home screen; do not leave the app or lock your device.
4. Place **OPTISHADE** and iPhone/iPad in a safe place and place the calibration card (white reference) always facing down.
5. Clean the teeth to be measured, removing plaque or stains gently—even if the teeth appear clean.
6. The patient should only open their mouth when instructed, to avoid teeth dehydration.
7. Reduce ambient light (close drapes/curtains, turn off unit light/ceiling light) or eliminate it completely if possible.
8. Position your device (iPhone or iPad) near the subject and parallel to the mouth. If unable to do so ask the patient to hold the screen near their face with the screen pointing towards you.
9. Hold **OPTISHADE** with one hand and gently retract the patient's lip with the other.

Remember: once the calibration card is removed, **OPTISHADE** is considered contaminated.

DURING measuring:

1. When on the Home Screen, click on the icon “measure”.
OPTISHADE lights will turn on and the video will start in the screen.
2. Ask the patient to open the mouth half way. Opening too much will make the positioning of **OPTISHADE** difficult, opening too little may show unwanted elements, such as the lower teeth.
3. Ask the patient to hold their breath: **OPTISHADE** is sensitive to fog; even a slight presence can compromise the measurement. If there is any suspicion of fogging, stop the measurement, blow air inside the cone and start again.
4. Ensure correct positioning by aligning **OPTISHADE** 's line perpendicular to the tooth axis. Move up-down, rotate left- right (page 22). Stabilize **OPTISHADE** 's with the same fingers you are retracting the lip with.
5. Measure one tooth at a time: locate the target tooth in the centre of the image (page 21) and shoot.
6. Right after clicking a message displaying “Taking photo please stand still...” After a few seconds the banner will change and display “Calibrating image”, now is safe to move. The target square will appear in the middle of the screen, that indicates that the measurement was completed.
7. **OPTISHADE** lights will automatically turn-off after the measurement, helping to preserve your device's battery life.



Tutorial here

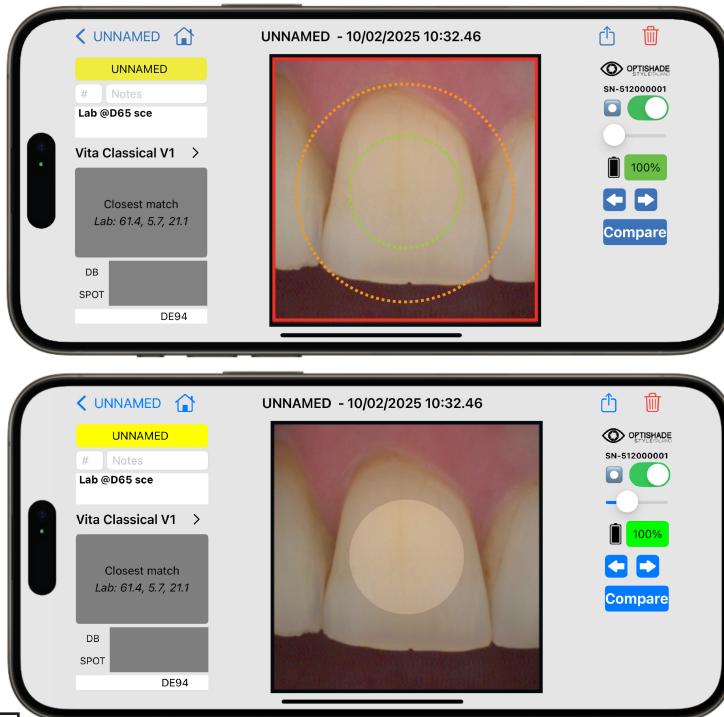
09 COLOR MEASUREMENT

The best area for color measurements is located in the centre of the image. In this region, the colors are more stable and easier to compare.

Perfect framing: The target tooth has to be perfectly centered in the image. Areas far from the center are less accurate and not optimal for color estimation.

- In side of the green circle the measures are the most accurate.
- Inside of the orange circle, images might contain a small error.
- Outside of the orange circle measures are not reliable.

The Sweet Spot function can be used while measuring and/or reading. In both situations is very useful. This digital simulation does not interfere with the color coordinates, it simply indicates the optimal zones for measurement. The digital assistant can be toggled on and off, and its intensity can be regulated. (See page 47-48)

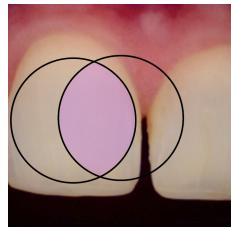


Correct measurement: Orientation

Mastering the correct positioning is one of the most challenging aspects of using **OPTISHADE**. It is strongly recommended to practice on a model and in your own mouth to gain experience quickly.



Correctly centred



While an uncentered image at the correct distance can be useful, the sweet spot-of-the-lens and the sweet-spot-of-the-tooth, will be significantly reduced, as shown in the pink area.



Too mesial



Too rotated clockwise



Too rotated counter-clockwise



Too high

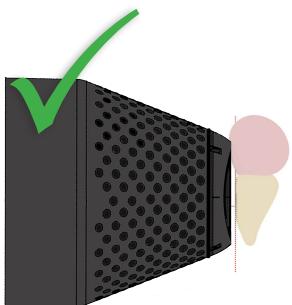


Too low

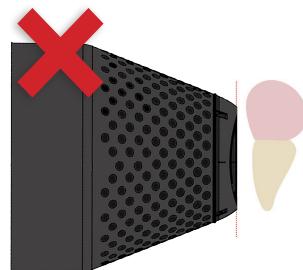


Too distal

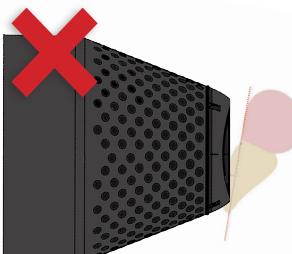
Correct measurement: Distance



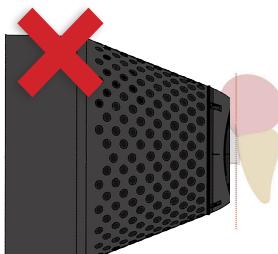
Perfectly parallel to the axis



Too far

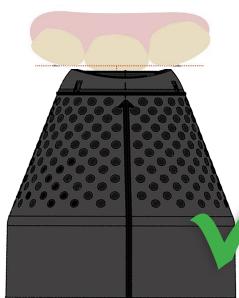


Too tilted to the front

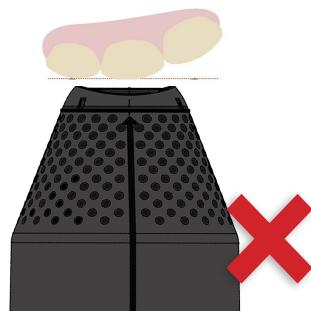


Too tilted backwards

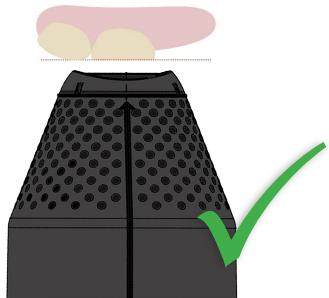
Correct measurement: Distance



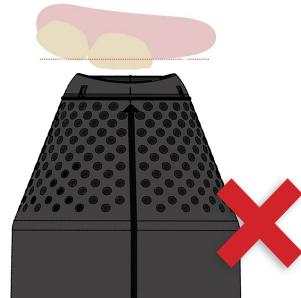
Aligned with the tooth surface by resting on adjacent teeth



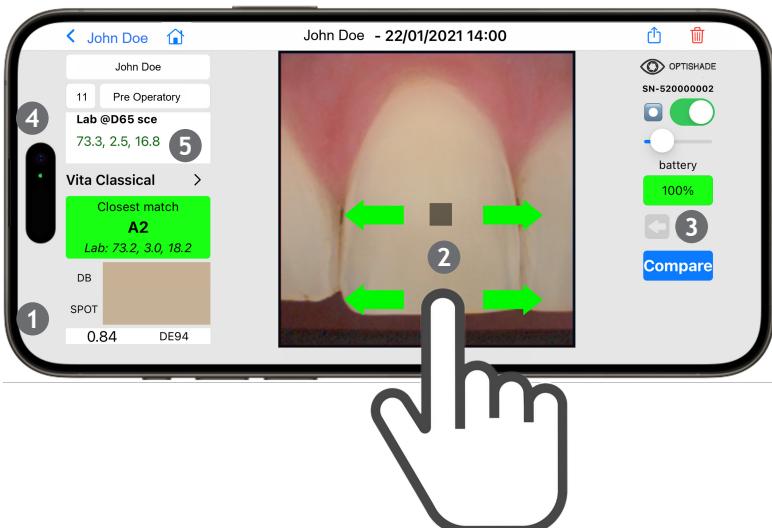
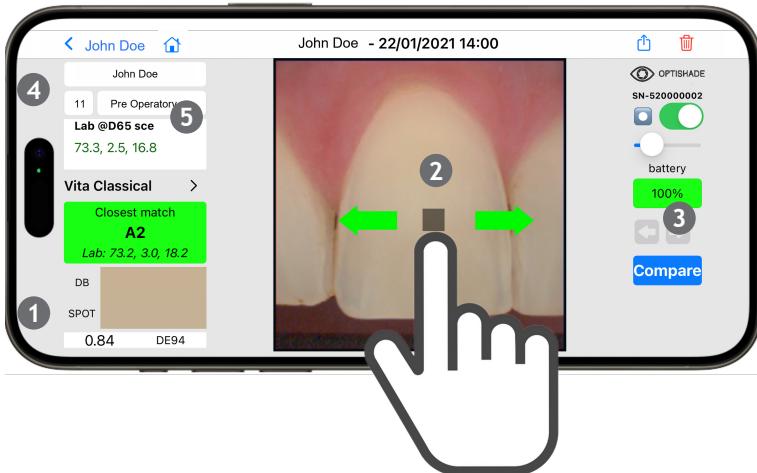
Too detached



Aligned with the tooth surface despite a missing adjacent tooth



Too close

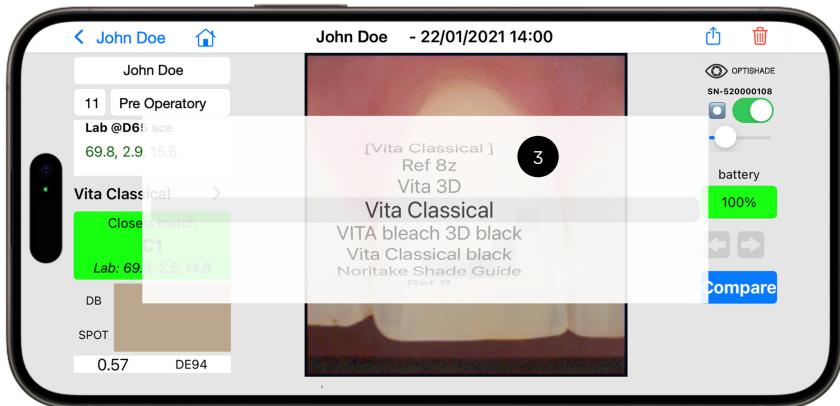


10 READING MEASUREMENT

Immediately after capturing an image, the target square will appear in the centre of the image. At the same time, the color correspondence will display in the “Closest Match” box. If the database match is green (under $\Delta E94$ 1.0), light grey squares will appear near the central measure, these squares are less than 1.0 $\Delta E94$ of the main measure.

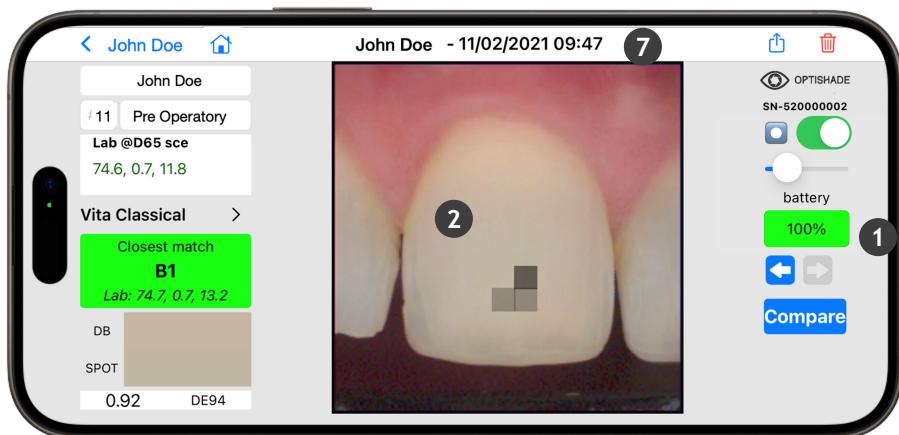
Browsing an image:

- 1 The color measured with the target square will be graphically displayed in “SPOT” and numerically shown in the “Lab” field. Data base box will display the nearest match (i.e. A2).
- 2 You can move the selection using your fingertip. It is not mandatory to position your finger over the square. If you need visibility to place the selection in a precise position, the selection can be moved with the finger located in another area of the screen.
- 3 Previous-Next button: Will display the previous or next image. If there is no previous or next image, the relative arrow will be colored gray.
- 4 Lab @D65 (SCE): Indicates that the Lab coordinates generated with OPTISHADE align with a spectrophotometer inside the dental color space with a specific illuminant (D65) and the specular component excluded (sce).
- 5 If the displayed Lab @D65 sce numbers are not in color green, they fall outside the dental color space, and accuracy cannot be guaranteed.



Reading measurement

- 1 Lab @D65 sce: coordinates where L* is brightness, a* is Red (axis red-green) and b* is Yellow (axis yellow-blue).
- 2 LCH @D65 (SCE): clicking on the “Lab” box switches to LCH coordinates where L* is brightness, C* is chroma and H* is hue.
- 3 Database selection: dropdown menu which will list all the color databases that **OPTISHADE** can compare to, as Vita Classical, Vita 3D, Chromascop, etc... Databases can be downloaded (see page 55) Select one, and **OPTISHADE** will provide the closest match based on the chosen database. There are databases for intra-oral measurement and extra-oral measurement.
- 4 Closest match: compares with all the entries in the color database and gives the closest match.
- 5 Second Option: click on the “CLOSEST MATCH” rectangle and it will switch to the second nearest option found in the database.
- 6 Color simulation and comparison: shows two colored rectangles, on top “DB” which displays the color found in the Data Base and “Spot” that displays the color detected in the target square (current selection).
- 7 Color difference: expressed in DE94 (best fitting formula for color difference inside the dental color space) shows numerically how different the colors from the DB and SPOT are.
- 8 Serial: **OPTISHADE** device serial number with which the measure was taken.
- 9 Battery: Device battery level at the time of measurement.
- 10 Battery color: there are four possible colors for this indicator.
 1. green: Battery level is good.
 2. orange: Not much charge left, but still ok for measurement.
 3. red: battery level is not enough to measure, device must be recharged .
 4. purple: battery level decreased significantly the device must be recalibrated. If it turns to purple while you are shooting, you can complete the current measurement and calibrate as soon as possible.
- 11 Back to Home button: Jump to the home screen at any moment when pressing this symbol.



How to know if a measurement is correct

There are several indicators to know if your measure is correct

- 1** Battery status: the indicator should be green; otherwise, measurement errors may occur.
- 2** Polarization: if you see reflections, make sure they don't come from external light contamination.
- 3** Position and framing: Teeth that are not perfectly centered in the image, are unlikely to have a good color measure. Areas far from the centre are less precise.
- 4** Focusing: out of focus images are highly unlikely to be in the correct position for measuring.
- 5** Desaturated image: caused by fog on the internal glass.
- 6** Background not dark: either the tongue is too close, a foreign object near or external light is contaminating the scene.
- 7** Name, date, and time are often helpful to understand if something went right or wrong with your measure (as in teeth dehydration).

11 DO'S DO NOT

Do 

Keep **OPTISHADE** charged, do not let the battery drain. Measurements are more precise and consistent with a full battery. A fully charged battery reduces the frequency of calibration requests.

Visually analyse your calibration card (white reference), if it has debris, scratches or has been touched accidentally by external objects, replace it immediately. A contaminated card will compromise the full system. (See page 9)

Keep the Calibration Cap always on a clean cone.

Use a realistic model (with gums, background, and adjacent teeth) to measure shade guides, crowns, veneers, and other restorations. (a model that recreates the gum, the background and the adjacent teeth).



Don't

Do not measure gray cards, color checkers or other color references. **OPTISHADE** 's cone is not designed for measuring flat samples and the Lab values will surely differ from the ones declared by the manufacturer of the color sample. If you need to measure flat colors for research purposes, contact us.

- jordi@styleitaliano.org

Do not measure segregated shade guides, it is extremely difficult to place them at the correct distance, they will lack the gum and the adjacent teeth. Even when creating a proper realistic model for shadeguide measurement you will probably get values that do not correspond with the code in your shade guide due to the difference in shadeguide batches and models.

Do not judge the accuracy of the device by measuring Shade guides. Shade-guides differ among them, those values found in the DB of **OPTISHADE** are close to the official values. It is common to find differences especially in close colors such as A2, B2, A3,5, B4 belonging to various shade guides.

12 OPTISHADE GOES TO SLEEP

After carefully following the disinfection procedure:

1. Place a clean cone.
2. Place a Calibration Cap.
3. Charge OPTISHADE.
4. Store it in a safe and clean location.



13 CLEANING AND DISINFECTION



Tutorial here

Calibration Cap:

Do not touch the calibration card (white reference) under any circumstance.

The Calibration Cap cannot be disinfected nor sterilized. In case of a doubt about its cleanliness, discard the Calibration Cap and replace it with a new one (see page 9). When the Calibration Cap is not in use, store it in a bag or a box protected from light and dust. Unless you have concerns about the cleanliness or reliability of a Calibration Cap (in which case you must discard it), our advice is to use a new one every month.

Capture Guide Cone:

This component is non-sterile and cannot be sterilized. After each patient it must be cleaned using standard disinfectants. Make sure that the Capture Guide Cone is dry inside and outside before use.

2nd calibration:

WARNING VERY IMPORTANT! In the case that a new calibration of your **OPTISHADE** is required for the same patient, always use a new Capture Guide Cone in order not to risk a contamination of the calibration card. If you decide to keep the same Capture Guide Cone for a second calibration, always discard the Calibration Cap at the end of the measure for not risking cross contamination with the next patient. Unless one of the previous reasons forces you to change the Capture Guide Cone before, our advice is to use a new one every month.

OPTISHADE base:

The base of your **OPTISHADE** must be cleaned very gently using a microfiber cloth. You may disinfect the surface of the glass with a disinfecting wipe. It is important that the surface of the glass is always clean, dry, free of dust and stains.

Be careful to avoid any liquid infiltration inside the base of your **OPTISHADE**. Make sure to always use a disinfection wipe that is just humid and NOT wet/damp.

VERY IMPORTANT! Any damage caused by an infiltration of liquid inside the base of your **OPTISHADE** is not covered by the manufacturer's warranty.

14 ADVANCED SETTINGS & UNDERSTANDING

Accumulative Errors

Color measuring requires extreme precision, several factors can result in less precise measurements.

OPTISHADE intrinsic error: This device can obtain Lab* coordinates within the dental color space with a precision of 0,2-0,4 in the same device (intra-device). The error between different devices ranges from 0,3 to 0,5 (inter-device).

If not careful, other issues can increase measurement errors:

1. Dirty/contaminated calibration card (white reference).
2. Non optimal battery charge (see page 8).
3. Calibration, multiple measurements have been performed without recalibrating, probably the warning message has been ignored (see page 15).
4. Bad positioning.
5. External light contamination (see page 29).
6. Fog (see pages 21, 22, 23 and 24).

Once we control all of these factors, the error can be minimized.

Calibration Card

The Calibration Cap is the support for the calibration card (white reference). It is designed to protect the white reference from light contamination and direct touch.

A simple touch with a finger ruins the calibration card and it should be replaced.

It should be mounted on the Capture Guide Cone at all times except during measuring.

When not in use, place it face-down on a flat surface.

Keep away from direct light.

Never touch the white reference.

If dust is visible, remove it by blowing air.

The Calibration Cap should be replaced regularly. Once every month is recommended by the manufacturer.



Optimizing OPTISHADE color measures

AFTER measuring:

1. Close the OPTISHADE app and place OPTISHADE in a safe place.
2. Remove the Capture Guide Cone and disinfect it.
3. Wipe the OPTISHADE glass and backside with a disinfectant wipe.
- *WARNING: MAKE SURE NO MOISTURE ENTERS THE DEVICE.**
4. Check that the glass is perfectly free from contamination (fingerprints, scratches, dust).
5. Position a clean cone and close it with a calibration card (white reference).
6. Charge the device.
7. **IMPORTANT!** Recalibrate prior to new measurements when changing the Capture Guide Cone.

What if?

1. If OPTISHADE prompts you to calibrate after it is contaminated, place a clean cone and calibrate again.
2. If you decide to place the Calibration Cap over the contaminated Capture Guide Cone, discard the calibration card immediately afterward.
3. If there is any probability of having contaminated the Calibration Cap or if its surface has been compromised (has visible contaminants or it has been accidentally touched) replace it with a new one and calibrate even if the system doesn't ask you to.
4. If OPTISHADE video is not starting, close the app open it again and follow the on-screen instructions.

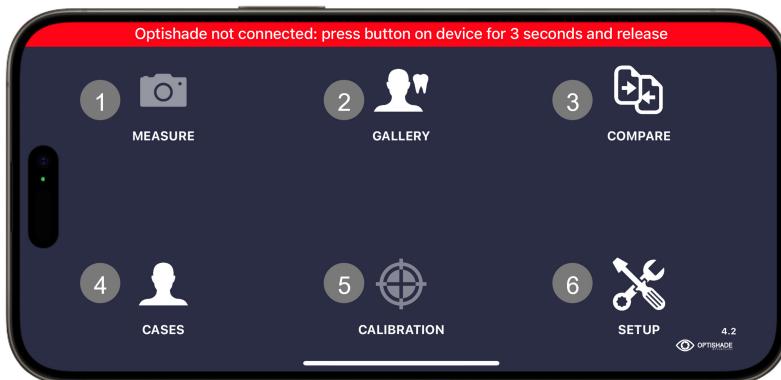
Optimizing OPTISHADE color measures

Light contamination: external light is the common enemy of most color measuring systems. Although **OPTISHADE** is designed to minimize this issue, light can filtrate through the surroundings of the cone.

OPTISHADE measures the color in context, which means that the tooth color is measured including the gum reflection and the nearby structures.

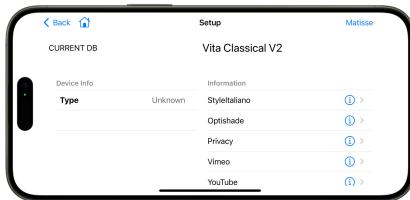
- Avoid strong light in the environment.
- Avoid being near windows.
- Avoid strong artificial light, especially the one from the dental chair.
- When measuring models, light contamination is more likely to happen.
- Turn off the dental chair light during **OPTISHADE** measurements, even if it's not directly aimed at the area you're working on.

15 OPTISHADE HOME SCREEN



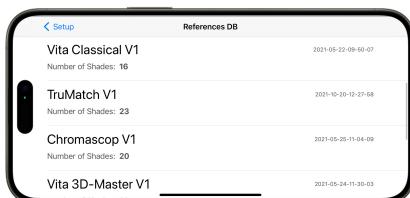
- 1 Measure: Opens the **OPTISHADE** live camera, this icon is only active when **OPTISHADE** is connected.
- 2 Gallery: Contains all the folders with the **OPTISHADE** images.
- 3 Compare: Opens the comparison tool (see page 46).
- 4 Cases: Create, delete, or edit individual or multiple cases.
- 5 Calibration: Lets you manually initiate calibration at any time, the icon is only active when an **OPTISHADE** is connected.
- 6 Setup: opens the set-up section (see next page).

16 SET UP SECTION



Here you will find the following options:

- Current DB.- sets the default shade guide.
- Device Info.- Info of the connected device).
- Matisse.- set-up of the email to share directly to Matisse.



When clicking in Current DB you can access the shade guide manager, to see all the installed databases.

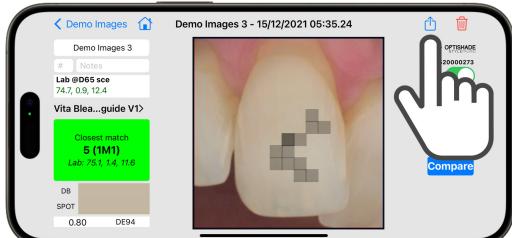


You can delete a database by swiping left.

It is not possible to delete Vita Classical V1.

17 SHARE DATA

Single Measurement

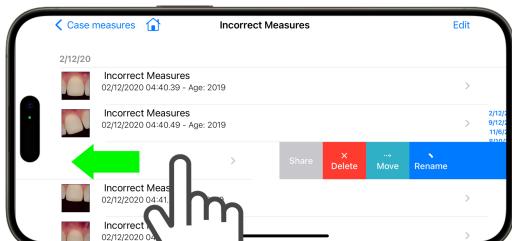


Method 1

Inside any image click on the “Share” icon that appears in the top-right corner of each measurement screen.



This will open a dialogue with the sharing options. Tap “Share” to send the file via any communication channel as WhatsApp, Telegram, e-mail, airdrop, etc...



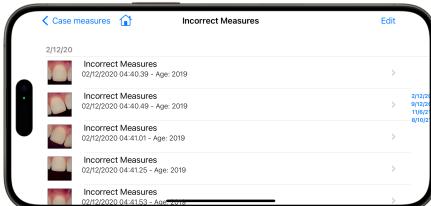
Method 2

Inside any folder, swipe left and a small sliding menu will appear, click on the “Share” button.

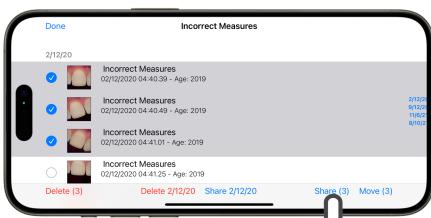


This will open a dialogue with the sharing options. Click on Share to send to another user by any communication channel as WhatsApp, Telegram, e-mail, airdrop, etc. The resulting file will have the extension .opti

Multiple Measurements



Inside any folder (including the Unnamed) click on "edit", that will allow to select multiple images.



Select all the images you need to share. You can select images individually or select all images from a specific date and add or remove individually from the global selection.



This will open a dialogue with the sharing options. Click on Share to send to another user by any communication channel as WhatsApp, Telegram, e-mail, airdrop, etc...



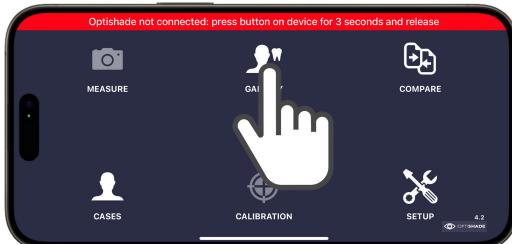
When sharing multiple images, the software will prompt you to define a name for the case. It will propose the name of the continuing folder. Confirm or edit the name, then tap OK.



Select the user/group you want to share with.

The resulting file will have the extension .opti

Complete Folder



From the main menu, go to the main gallery.



On the main gallery, go over any folder (except the unnamed folder) and then swipe left to reveal the Share button.



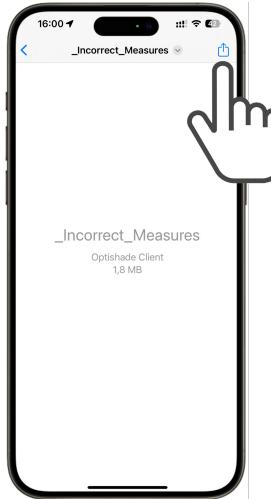
This will open a dialogue with the sharing options. Choose any user or group with any iOS allowed communication channel as WhatsApp, Telegram, e-mail, airdrop, etc...

The resulting file will have a .oscli extension and will include all images and related case information.

18 IMPORT DATA



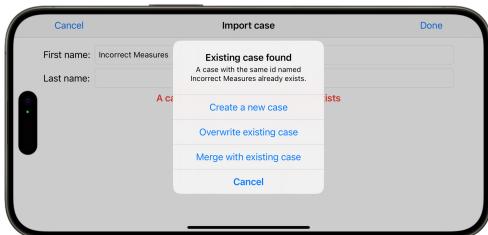
Click on the received file, .opti and .oscli files are not natively recognized by iOS.



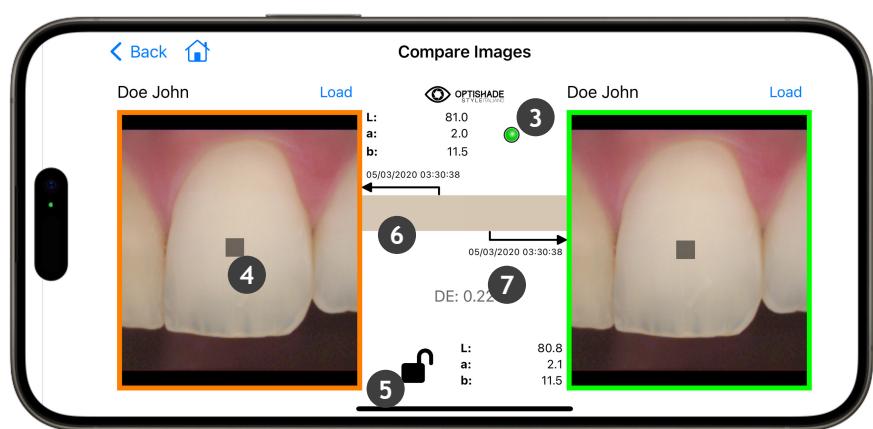
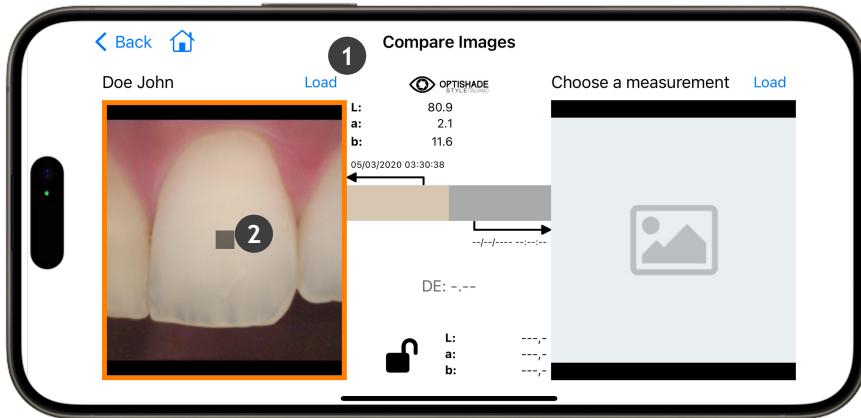
Click on the share icon to browse the options.



Open the file with the OPTISHADE app.



Once the file is open, the app will ask you to save it. If another case has the same name, the app will prompt you to create a new one, overwrite it or merge the data.

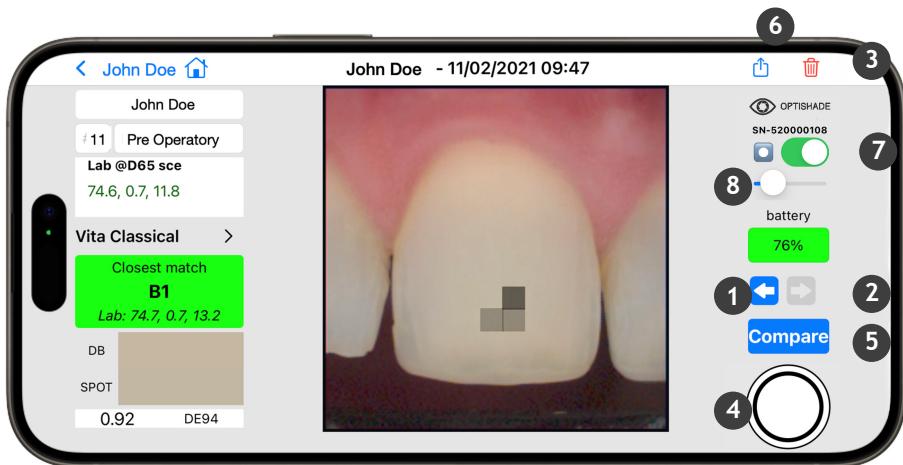


19 THE COMPARE FUNCTIONS

You can access this feature from

- home screen
- any open image

- 1 Click Load to select an image from the gallery or click anywhere in the gray square with the image icon.
- 2 Once an image is open, the target square will appear in the centre of the image. In order for the comparison tool to start working, it is necessary to load an image on the right.
- 3 Indicator: a colored circle will appear in the upper central part:
 - green: the two images were taken by the same device, therefore, a correct comparison can be done, intra-device error should be considered.
 - yellow: images were taken by two different devices with the same type of connection, therefore, you need to consider inter-device errors.
 - blue: images were taken by two different devices with the different type of connection, therefore, you need to consider inter-device errors.
- 4 Select: you can move the measuring target square around the screen with your finger.
- 5 Lock icon: an open lock allows you to move the selection square independently in each image. A closed lock will make both squares move at the same time in the same direction in both screens. You can move the target square on both images.
- 6 Color comparison: shows two colored rectangles, corresponding to the left and right target square. This provides a visual simulation of the color difference. The division is hardly visible with small color differences (i.e. below 1.0 DE94).
- 7 Color difference: expressed in DE94 (most uniform formula for color difference inside the dental color space) shows numerically how different are the colors of the left and right target squares. It remains gray if no comparison image is loaded.

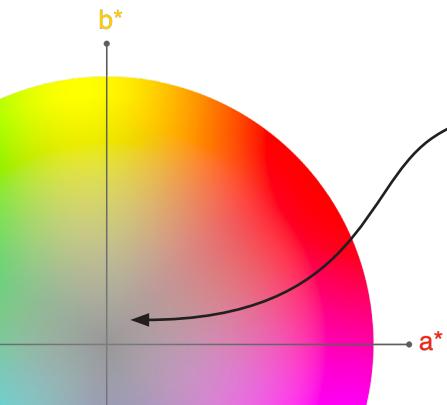
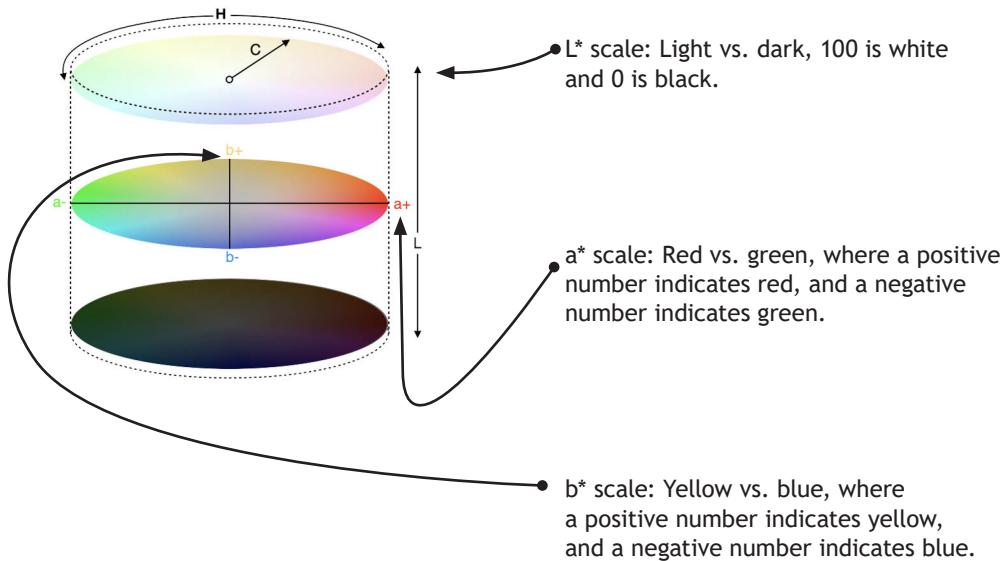


20 OPTISHADE ON SCREEN CONTROLS

- 1 Previous: arrow pointing left brings you to the previous image of the case you are currently in. The default collection is UNNAMED. If the arrow is not highlighted blue, no other image is available in that collection.
- 2 Next: arrow pointing right brings you to the next image of the case you are currently in. The default collection is UNNAMED. If the arrow is not highlighted blue, no other image is available in that collection.
- 3 Delete: immediate image elimination, an extra dialogue will appear for confirming the image elimination.
- 4 Virtual shooting button: appears only when a measurement is possible. If it does not appear, go back to the home screen. Depending on the type of work, it is suggested to take more than one measurement.
- 5 Compare: sends you to the compare function described in page 46.
- 6 Share: opens a dialogue, with all the iOS capabilities to share one or more OPTISHADE measures, among which, email, airdrop, messenger, WhatsApp, Telegram, iMessage and many more.
- 7 Toggle sweet spot indicator (see page 21).
- 8 Adjust sweet spot intensity (see page 21).

21 READING COLOR COORDINATES

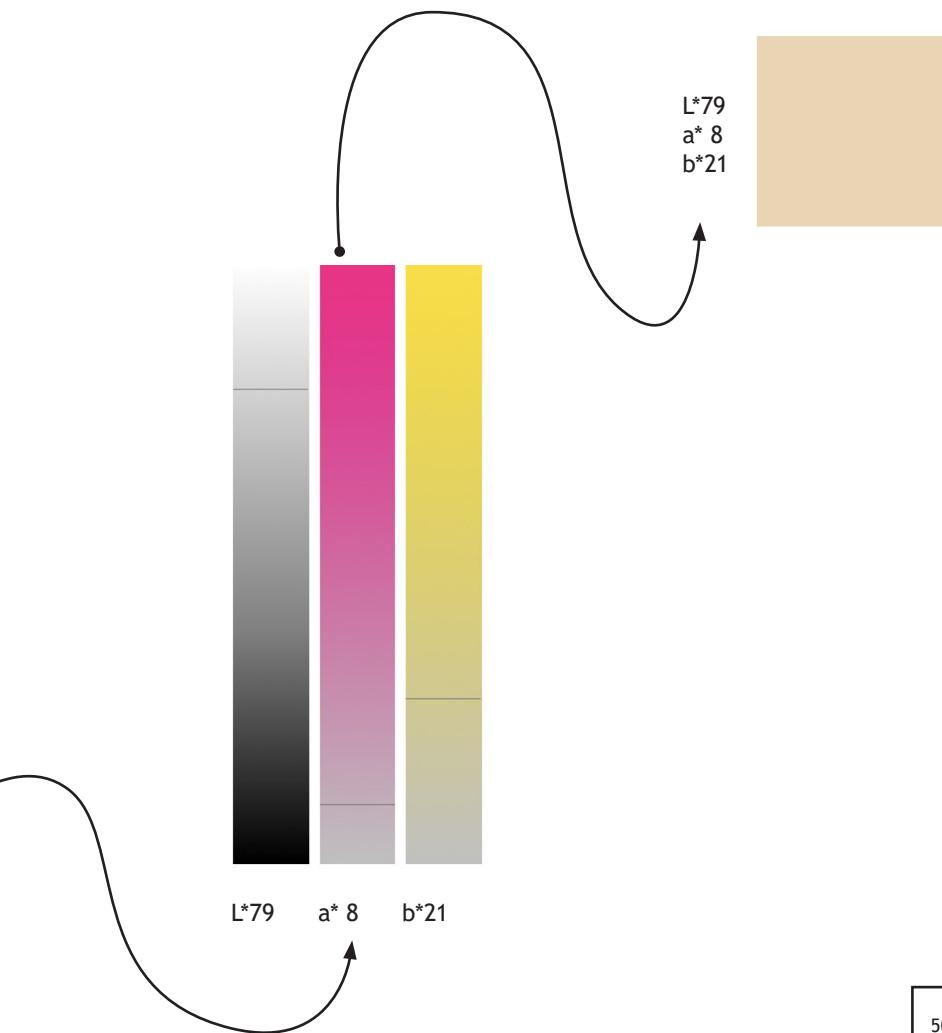
The Lab* color space numerically defines all colors in three dimensions. L^* is for brightness and a^* and b^* for the color components green-red and blue-yellow, respectively.



In the dental field, color coordinates are simple to interpret, as we virtually only have to take care about brightness (L^*), red (a^*) and yellow (b^*). It is uncommon to encounter negative values.

The L*a*b* scales rise above language barriers enabling anyone to easily communicate color independently of the device, and it provides the necessary information to calculate color differences.

OPTISHADE communicates in Lab coordinates and LCH, making the communication very intuitive and precise.





Lab measures:

Database Reference

Lab coordinates of the shade guide selected from [the database](#)

Spot (measurement area)

Lab coordinates of [the measured area](#)

2	L*72.9 a* -0.5 b* 13.2
3	L*76.3 a* 2.9 b* 15.6

Conclusions:

- 3.2% Lighter
- Slightly more red
- Slightly more yellow

22 COLOR COMPARISON SIMULATION

- 1 Colored rectangles show a close color interpretation of the measurements.
- 2 The first rectangle (DB) shows the closest color found on the pre-loaded (shade guide) database.
- 3 The second rectangle shows the color of the actual measurement (target square).

This simulation helps visualize the difference between the Reference (DB) and the target square (Spot) and have a realistic vision of how different are the two colors being analysed.

Color division in the simulation is horizontal, it may be imperceptible with small color differences (e.g., under 1.0 $\Delta E94$).

This is a very powerful tool when interpreting coordinates and understanding the possible color differences.

ΔE_{94}

PERCEPTION IN THE DENTAL FIELD

0	Identical perceived colors
<0,67	Excellent match
0,67 to 1	Very good match
1 to 1,6	Good match
1,6 to 2,7	Acceptable mismatch
2,7 to 4,7	Evident mismatch
>4,7	Unacceptable mismatch

Reference: Manauta J, Salat A, Devoto W, Putignano A. Layers2 - The Styleitaliano Clinical Secrets. Quintessence Books 2022

23 INTERPRETING COLOR DIFFERENCE

DELTA E is a metric for expressing how the human eye perceives color difference. DE94 (or $\Delta E94$) is a color difference formula commonly used in graphic arts. It behaves in the most uniform way along all axes of the dental color space.

On a typical scale, the DE94 value will range from 0 to about 200. A value of zero indicates two colors are perceived as identical.

Our specific tolerances are shown in page 54. When measuring, OPTISHADE uses color indicators for database matches: green for excellent match, orange is a good match, and in red all the different mismatches.

24 DOWNLOAD SHADE GUIDES

OPTISHADE App comes with the Vita Classical V1 shade guide installed. If you wish, it is possible to install additional shade guide databases in your **OPTISHADE** app by visiting the following website:

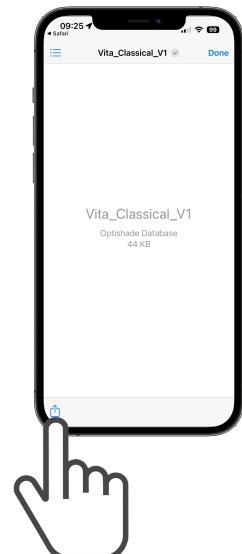
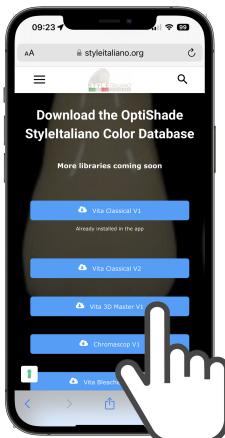
<https://www.styleitaliano.org/OPTISHADE/app/>

New shade guides and updates to existing ones are regularly published at the link above.

Click the desired shade guide to begin downloading.

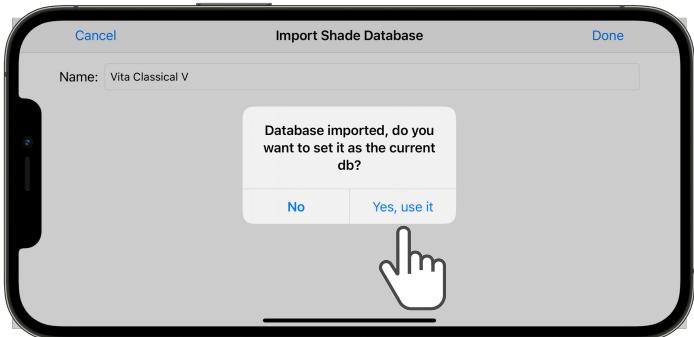
Go to the downloads section and find the database.

Export the file using the Share button, then open it with the **OPTISHADE** app.





Click Done and the database will be installed.



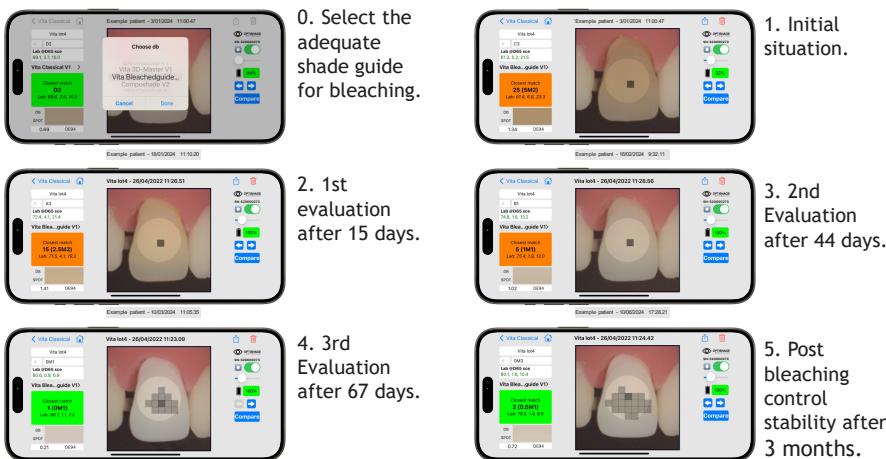
If you want the database to be your default database, click on Yes, use it, otherwise you can do it later in the settings.

25 GUIDES BLEACHING MONITORING

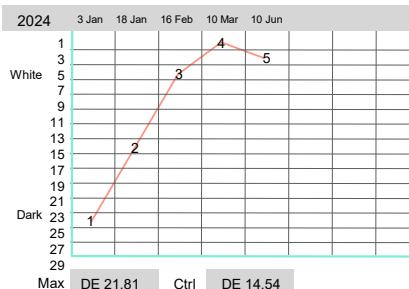
Download and install the Vita Bleachedguide color database.

https://styleitaliano.org/Vita_Bleachedguide_V1.shade.

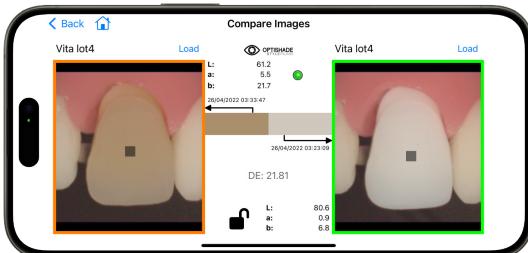
Measure a central incisor – all bleaching assessments will be based on that tooth, in order to track the success and progress of the bleaching treatment. Select the “Vita Bleached Guide V1” and read the color code (1 to 29) The result of each measurement will be saved, and can be plotted in a simple chart -lightness vs date-. This chart enables the clinician to visually track and evaluate bleaching progress.



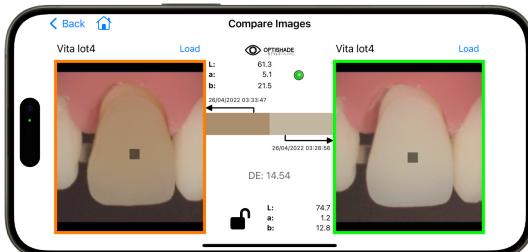
Patient name:



Bleaching Thresholds



Initial situation (1) vs 3rd evaluation (4) shows a very high Delta.



Initial situation (1) vs 3 months bleaching control (4) shows a lower Delta, but still very successful.

For more accuracy, it is suggested to use the **OPTISHADE** comparison tool in order to obtain an exact color difference by comparing the same tooth on the exact same point and get a Delta E value which will describe more accurately how effective/non-effective the bleaching treatment was.

From the Delta E value (color difference) we can estimate mathematically the progress, success and stability of the bleaching therapy. Logically when working with bleaching, a higher Delta E is more desirable.

We can use established values from clinical studies, as in the example below, the official bleaching thresholds for **OPTISHADE**.

STYLEITALIANO Bleaching Thresholds success

ΔE_{94}	BLEACHING SUCCESS
<1.6	Unsuccessful
1,6 to 3,2	Scarce
3,3 to 5,5	Acceptable
5,6 to 7,0	Moderately Successful
7,1 to 9,4	Successful
9,4 to 10,5	Highly successful
> 10,5	Power bleaching

These bleaching thresholds are based on an ongoing clinical study by Manauta et. Al, based on the study of appearance in the dental color space by Rizzi et al. which uses the DE94 formula to evaluate the human perception, which is suitable as well to evaluate the success of a whitening treatment.

Unexpectedly, this scale is aligned with a 1 to 10 grading scale, making it easy for professionals to provide immediate clinical judgment.

26 MATISSE SOFTWARE & APP

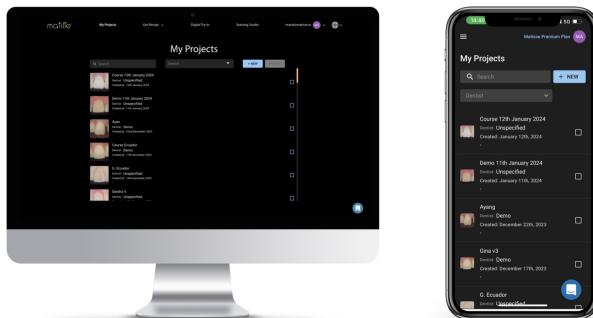
The Matisse software and iOS app assist dental technicians in creating dental restorations using the color information obtained from OPTISHADE. The step-by-step protocol and Matisse recipes ensure a quick and predictable color match.

The dental technician retains complete control over the process and decides the type of restoration they create: full monolithic crown, micro-layering, full-layering, veneers, or a bridge.

Matisse provides recipes for the selected workflow.

You can easily share the **OPTISHADE** files directly to the Matisse iOS app.

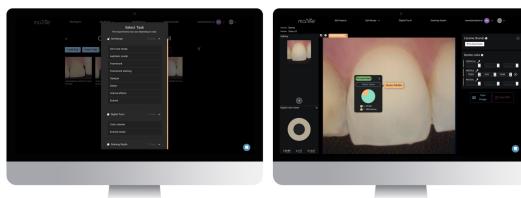
Once shared, the files will be synchronized in the Matisse WebApp cloud under “My projects”. This lets you organize your cases in both the iOS app and the WebApp, making it easy to generate precise recipes for any selected workflow.



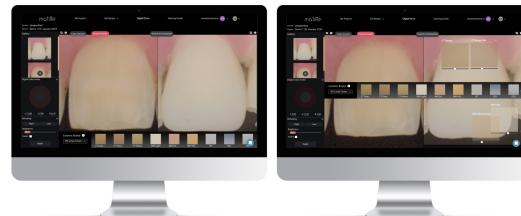
The projects in Matisse Webapp and Matisse iOS app are synchronized automatically and saved in the cloud.

Matisse Software (Web app) provides the following functionalities:

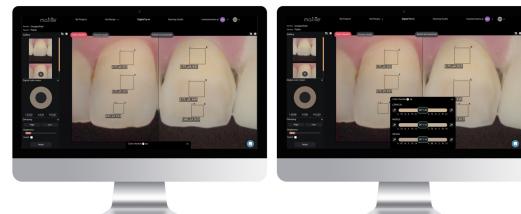
- Resin recipes to replicate the stump shade.
- Material selection for the framework or full monolithic crown.
- Staining recipes for full monolithic or micro-layering crowns.
- Staining recipes to correct your first bake or internal staining.
- Flowable composite stain recipe to stain the stump shade of 3D printed or resin models.
- Staining recipes for the washbake.
- Dentin recipes with ceramic powders.
- Opaque recipes.
- Internal effects recipes with ceramic powders.
- Enamel advice.
- Digital try-in (check the final result with three spots deltaE comparisons) - Digital try-in (compare ceramic samples with natural teeth).
- Digital try-in (edit the images with the Dehazing tool for enhanced visualization of the tooth's histo-anatomy).
- Gingiva recipes for staining and ceramics



Matisse iOS app staining recipe for full monolithic crown.



The Matisse iOS app supports multiple languages and features such as framework advice.



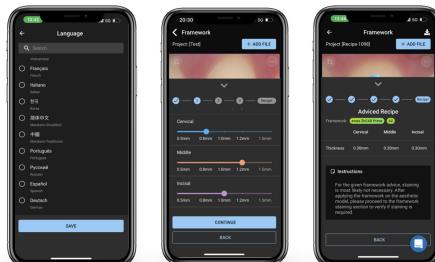
The ceramic dentin recipe is generated when clicking on the natural tooth, Matisse Webapp supports all features.

Matisse iOS app provides the following functionalities:

- Resin recipes to replicate the stump shade.
- Material selection for the framework or full monolithic crown.
- Staining recipes for full monolithic or micro-layering crowns.
- Staining recipes to correct your first bake or internal staining.
- Flowable composite stain recipe to stain the stump shade of 3D printed or resin models.



Matisse Webapp has a digital try-in functionality where one can measure the color difference and see the result in DeltaE*.



Matisse Webapp has a digital try-in functionality where one can measure the color difference and see the result in DeltaE*.

Matisse supports all major ceramic and staining brands used in clinical dentistry available in the market.

Find more information about the supported brands in the FAQ section www.matisse.ai.



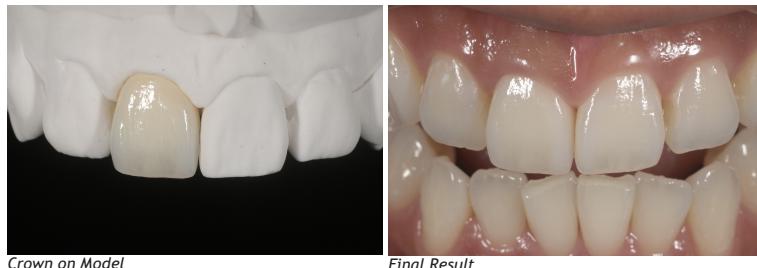
Matisse iOS app and web app offer 30 Days Free Trial. Try it out and contact us via the chatbox on www.matisse.ai if you need assistance getting started.

To learn the Matisse and OPTISHADE workflow, you can also check the Youtube tutorials. Scan the QR code to visit the Matisse Shade Matching channel.



Results obtained using Matisse protocols
based on OPTISHADE color measurements.

Case 1: Ryosuke Shimizu, Japan



Case 2: James Choi, USA



Case 3: Bruno di Gregorio, Australia



Case 4: Ilan Brosh, Israel



27 TROUBLE SHOOTING

Calibration failed: This usually indicates the Calibration Cap was missing, or the card or the internal glass is dirty or the glass is dirty. You will need to disconnect and charge **OPTISHADE** for a few minutes. (See page 17).

Video will not start: **OPTISHADE** may have no battery, charge the device and try again.

Video will not start: **OPTISHADE** disconnected. Go to the home screen and reconnect.

Video will not start: close **OPTISHADE** app and try again. If problem persists, update your iOS and make sure you are running the latest version of the OptiShade app

OPTISHADE is not connecting: Fully charge **OPTISHADE**, until the green light turns on. Restart the app and try again. If problem persists contact assistance.

Orange charging light: indicates a battery error. Disconnect **OPTISHADE**, wait 5 minutes and connect again, light should turn to red. If light remains orange, please contact us.

Calibration taking too long: there was an error or light contamination during calibration. Check the calibration card (white reference), check that the glass is clean. Restart the app.

N/A: This means **OPTISHADE** is connected to an unauthorized accessory. This compromises the accuracy of your measurements.

28 TIPS

You can capture an image using either the back button or the **virtual** button – both function identically.

Use the app with sound, there are acoustic indicators while measuring. Acoustic signals tell you if the battery is draining.

Keep a cone with a Calibration Cap already mounted and in a safe place free of light, dust and moisture. This will be handy in case **OPTISHADE** prompts you to calibrate during a procedure.

In the app Set-up “current DB” allows to set your preferred shade guide.

Find video tutorials in the setup section.

Use iOS 17 or higher and keep both iOS and **OPTISHADE** app updated to the latest versions.

Update **OPTISHADE** app when an update is available. Automatic update's function is suggested to be turned on.

Back-up your iPhone or iPad, **OPTISHADE** information is contained in the iOS device back-up.

Use the “Second Option” feature regularly – it provides deeper insight about the color you are reading and the correspondence you are obtaining.

29 ACCESSORIES

Hardcase

A compact and sturdy transport case designed to protect your **OPTISHADE** device and accessories during travel. It shields delicate components—like the calibration cap and capture cone—from dust, shock, and light. Ideal for mobile professionals, trainers, and multi-location clinics.



Capture Guide Cones - 5pcs

A critical component that ensures proper alignment of **OPTISHADE** on the tooth. It minimizes ambient light interference and ensures consistent positioning for accurate shade measurement. Must be cleaned or replaced regularly to avoid cross-contamination.



Calibration Caps - 5pcs

(with integrated white reference card) Used for calibrating the **OPTISHADE** before each measurement. It contains a highly sensitive white reference card—any dust, fingerprint, or scratch can distort the calibration. Always store it protected from light and replace it regularly.



USB-C Charging Cable & USB-C to USB-A Adapter

For charging the **OPTISHADE** device. Use only high-power chargers (QC/PD 18W or higher). Avoid using computer or tablet USB ports, as they do not provide sufficient power. A fully charged battery ensures consistent measurement quality and reduces calibration frequency.



Description	Nº Art.
Optishade Full Set Bluetooth	70100-OS-BT
Capture Guide Cone (5pcs)	70110-OS
Calibration Cap (5pcs)	70120-OS
Hardcase	70130-OS
USB-C Charging Cable	70160-OS-BT
USB-C to USB-A Adapter	70165-OS-BT



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