Reliability and Accuracy of Four Dental Shade-Matching Devices

“The purpose of this in-vitro study was to evaluate the reliability and accuracy of 4 dental shade-matching instruments in a standardized environment. Four shade-matching devices were tested: SpectroShade®, ShadeVision®, VITA Easyshade®, and ShadeScan®.”

“Results: Accuracy of devices was as follows: VITA Easyshade, 92.6%; ShadeVision, 84.8%; SpectroShade, 80.2%; and ShadeScan, 66.8%. Significant differences in accuracy were found between all device pairs (P<.001) for all comparisons except for SpectroShade versus ShadeVision (P=.033).”

VITA Easyshade was the only color measurement instrument tested in this study that has both reliability and accuracy values greater than 90%.

A Comparison of Human Raters and an Intra-oral Spectrophotometer
WD Browning et al., Operative Dentistry 2009; 34(3): 337-343

“The current study compared the accuracy and consistency of the Easyshade (ES) device to three clinicians experienced in tooth whitening trials and trained in the use of the Vitapan 3D-Master shade. The maxillary anteriors of 16 participants were matched on three separate occasions one month apart. At each appointment, three clinicians (R1, R2, & R3) and ES independently chose a single 3D-Master tab.”

“In terms of the number of exact matches and matches within a half-shade, the performance of the ES (Easyshade) was at least comparable to, if not better than the dentists. Statistically, the same was true in terms of consistency and accuracy when making repeated matches of lightness and chroma using the 3D-Master shade guide.”

Accuracy of the Easyshade Clinical Spectrophotometer with Shade Guides

“These in vitro data indicate a significantly higher accuracy when the 3D-Master Shade Guide output is used compared to the Vita Classical Guide output for shade measurements with the same Easyshade Clinical Spectrophotometer.”

*Not a trademark of VITA or Vident. All data on file.
What are Clinicians Saying?

“It is a mystery to me why more dentists have not yet adopted digital shade taking technology… with the VITA Easyshade Compact it can easily be carried from operatory to operatory to measure bleaching success… When someone told me I would never have to take a shade again—or more importantly—miss a shade again, I jumped at the opportunity. I have not been disappointed.”

Michael DiTolla, DDS, FAGD. Dental Economics, May 2009

“The VITA Easyshade offers fast, accurate shade measurements with no loss of ‘down time’ that is typical with alternative devices. The payoff… exceptional aesthetic results!”

- Edward Lowe, DMD
Private Practice, Vancouver, BC, Canada

“The age-old challenge of taking an accurate shade has been simplified. The VITA Easyshade has relieved my middle-aged eyes of having to zero in on just the right porcelain shade.”

- Martin B. Goldstein, DMD
Private Practice, Wolcott, CT

“The VITA Easyshade Compact is so fast, so accurate, and makes communication with your lab so much more effective, that it reduces your remakes and frees up all that wasted chair-time. In my humble opinion, it is a necessary piece of equipment in ALL dental offices.”

- Artemiz Adkins, DDS
Private Practice, Scottsdale, AZ

“What are Clinicians Saying?

“The VITA Easyshade Compact is a spectrophotometer, and spectrophotometers have been found to be more accurate than Colorimeters in measuring dental tooth shades.”

– The probe has its own light source, eliminating the need for optimal light conditions.
– There are 3 basic modes:
  1) Natural teeth measurement (single shade or cervical, middle and incisal)
  2) Restoration measurement (crowns, veneers, composites)
  3) Shade tab verification for quality control of the Easyshade Compact
– The probe of the Easyshade Compact is small enough that it can accurately reach a molar at the back of the mouth or differentiate between areas of shade in the same central.
– The Easyshade Compact has a rechargeable battery which lasts a week and allows calibration of the unit without the recharge base having to be plugged in.
– Verify the shade of a restoration. Enter a shade and the Easyshade Compact tells you if the match is good, fair or requires adjustment. More importantly, the Easyshade Compact displays where you are off – Value, Chroma and/or Hue so that you can refine your shade match with the VITA 3D-Master system.
– The Easyshade Compact measures VITA Classical and VITA 3D-Master shades. However, it measures half-shades for the 3D-Master system, allowing precise determination of up to 81 shades! As a consequence, selecting the 3D-Master shade over the VITA Classical shade provides a more accurate result in most cases.