

SAGEMAX RESEARCH CENTER: our on-site research facility



Sagemax has an extensive Research and Development facility. It is extremely important to have absolute control of the quality. Our team consists of a resident scientist, engineer, dentists, a certified dental technician, and outside clinical and lab consultants. As new dental products are constantly being developed, Sagemax is at the forefront of such researches.

Our research and development involve state of the art equipment such as Xrite photo spectrometer, Autograph Flexural tester, Vita shade analysis, Particle size analysis and a Scanning Electron microscope equipped with EDX.

RESEARCH LAB TOOLS:

Controlled tests are developed internally before final evaluations and certifications. Comparative tests on materials from other manufactures are performed constantly in our facility. It is extremely meaningful to Sagemax, to be established as a leader in the manufacture of Dental zirconia, consequently much resource and time is invested in the testing as well as the research and development of our products.

Sagemax also employs external clinical and lab facilities for research to analyze for radioactivity and purity. Our materials always meet or exceed the industry standards.

The controls initiated by Sagemax involve the initial tests performed on the powder to the finished product. The following equipment used extensively in our test facility includes:



PARTICLE SIZE ANALYSIS

The first step to optimum quality is to be sure that the powder is thoroughly evaluated. The correct particle size will transfer to the best quality product.

This critical step measures particle size by laser scanning. Various sized particles are mixed in controlled ratios in the production of Sagemax zirconia to achieve maximum strength and density.

It is important that Sagemax uses the best formulation to ensure that our customers are provided with the absolute best quality.



SCANNING ELECTRON MICROSCOPE WITH BRUKER EDX TECHNOLOGY

This important piece of equipment allows Sagemax to evaluate our materials as well as perform comparative tests. Energy Dispersive spectrometry (EDS) and X-ray EV allows us to examine all aspects of material science including chemical composition, microstructure, surface condition and abnormalities.

All these pertinent information allows us to conform and stay above the ISO standards set for a medical device.

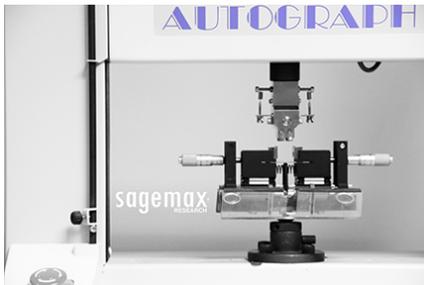
The images can be enhanced to 1 million magnifications and evaluated for wear, polishability and general chemical analysis. This information for example can help us determine the ideal polishing compounds and abrasive diamonds to be used with our materials.



X-RITE COLOR I7 AND UV SPECTROPHOTOMETER

The 3M devised method of color evaluation using 1-CR value is determined using the Xrite. This is an accurate, complete analysis for translucency as well as color. We check all Sagemax materials including preshaded and non-shaded Zirconia and PMMA. Sagemax colors and translucency are tested with these machines and rate as the highest in our industry.

These UV spectrophotometer test machines measure daylight ranges of 400um to 700um. We can also use the D65 light source to test for translucency as well as color.



FLEXURAL STRENGTH TESTING

The Japanese manufactured Autograph strength test machine analyzes for flexural strength and toughness. The breakage points are determined in 3 point, 4 point and biaxial flexural tests.

We perform these tests to make sure our materials meet the consistent required parameters. Sagemax zirconia is thoroughly tested for optimum strength.



MILLABILITY TESTING

At our test facility we utilize various milling machines and scanners like 3 Shape, EGS, DWX50, Cercon and Dentmill, to fabricate test restorations. Sagemax constantly performs tests on finished restorations, evaluating for all quality standards. Our facility is fully equipped with all the laboratory equipment to evaluate the manufactured dental restoration. We believe that our materials will perform very well in the oral environment.

We use test standards to check for fit, marginal integrity, strength, color stainability, esthetics and overall quality.

In addition, we are able to provide extensive customer support in all phases of milling.

AGE TESTING

This is an important test to analyze the durability and longevity of zirconia. Our tests show that Sagemax Zirconia has incredible longevity surpassing most dental restorative materials. It is not uncommon for analysis to be conducted for 35 to 50 year durability. We can perform these durability tests for any given period of time.

Sagemax believes in the the continued research and development so we can be in the forefront and support the perfect materials in dentistry.

INDUSTRY BEST

Our extensive research and development enables Sagemax to offer the highest quality products.

Sagemax NexxZr T translucent zirconia recently received a 5 star rating from The Dental Advisor in a 6 month clinical trial.....

[Click here to see a copy of the full report.](#)

Satisfaction Guaranteed

The ongoing research and testing of products and our rigorous quality control standards enable us to be confident that our customer will be completely satisfied....or we will provide a full refund.

Sagemax NexxZr....Powered by Quality