



CELLIANT®



POWERED BY:
CELLIANT

AMPLIFYING HUMAN POTENTIAL

CELLIANT® is a responsive textile that captures and converts body heat into infrared (IR) energy, providing a myriad of wellness benefits. An ingredient brand, we work with partners to infuse their products with CELLIANT's clinically proven technology.

When a product is powered by CELLIANT, you know it's backed by science and delivers measurable health and wellness benefits.

The FDA has determined that CELLIANT products are medical devices as defined in section 201(h) of the Federal Food, Drug and Cosmetic Act and are general wellness products.

CELLIANT is designated as a Class 1 Medical Device in Australia, Canada, the European Union, Japan, New Zealand and the United Kingdom. CELLIANT is cleared to market in China, India, Indonesia, Korea, Mexico, Peru, Philippines, Russia, Singapore, Thailand and Taiwan, with more countries and regions to follow.

THE CELLIANT ADVANTAGE

CELLIANT is extremely versatile and adds value to a wide variety of products across industries. It differentiates your brand in a crowded market with a unique selling proposition creating coveted products that command a premium.



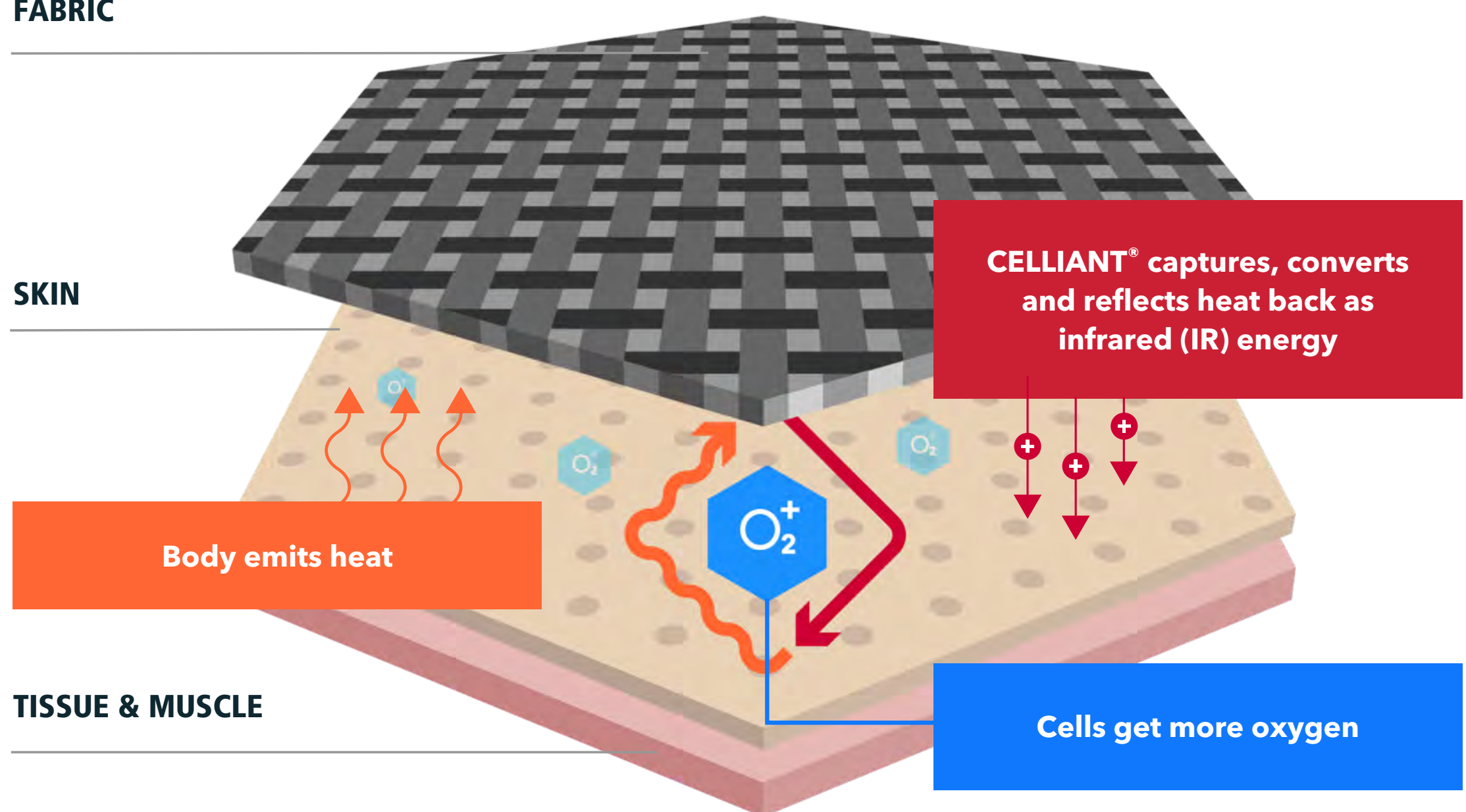
HOW IT WORKS

CELLIANT's proprietary natural mineral blend gives any textile-based product the ability to absorb the body's heat. Once absorbed, the heat is converted by the minerals into full-spectrum infrared energy and is reflected back to the body. This increases local circulation and improves cellular oxygenation, resulting in CELLIANT's numerous benefits.

FABRIC

SKIN

TISSUE & MUSCLE





Clinical trials show that CELLIANT provides a

12%

grip strength increase*

PERFORM STRONGER

CELLIANT powers the world's leading performance apparel, workwear and upholstery because of its ability to absorb the body's heat and transform it into full-spectrum infrared energy. This energy is returned to your body and gives you improved strength, speed and endurance.

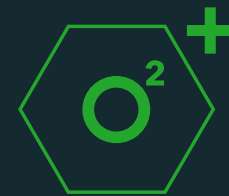
* **Source:** Effect of Shirts with 42% CELLIANT® Fiber on tcPO2 Levels and Grip Strength in Healthy Subjects: A Placebo-Controlled Clinical Trial, Dr. Ian Gordon, Dr. Mark Vangel and Dr. Michael R Hamblin - Long Beach VA Memorial Hospital, 2019



CELLIANT®

RECOVER FASTER

CELLIANT-powered apparel, wraps and braces, bedding, mattresses and upholstery help improve local circulation and increase cellular oxygenation, allowing you to recover quicker from physical exertion. In addition, CELLIANT improves the body's ability to regulate its temperature, so you stay more comfortable while you're relaxing and recovering.



CELLIANT has been clinically shown to provide an average increase of

8.4%

in local tissue oxygenation *

* Source: Randomized Controlled Trial Comparing the Effects of Far-Infrared Emitting Ceramic Fabric Shirts and Control Polyester Shirts on Transcutaneous PO₂, Dr. Ian Gordon, James Wason, Dr. Lawrence Lavery, Dr. Michael R Hamblin and MS Thein - Long Beach VA Memorial Hospital, 2014

NOTE: The minimum threshold to pass TcPO₂ testing is an average increase of 7%.





SLEEP BETTER

Good sleep is critical to good health. CELLIANT-powered bedding, mattresses and sleepwear promote a more restful sleep by increasing local circulation, helping your body regulate temperature. When you're the right temperature, you tend to stay asleep longer and wake less frequently during the night.



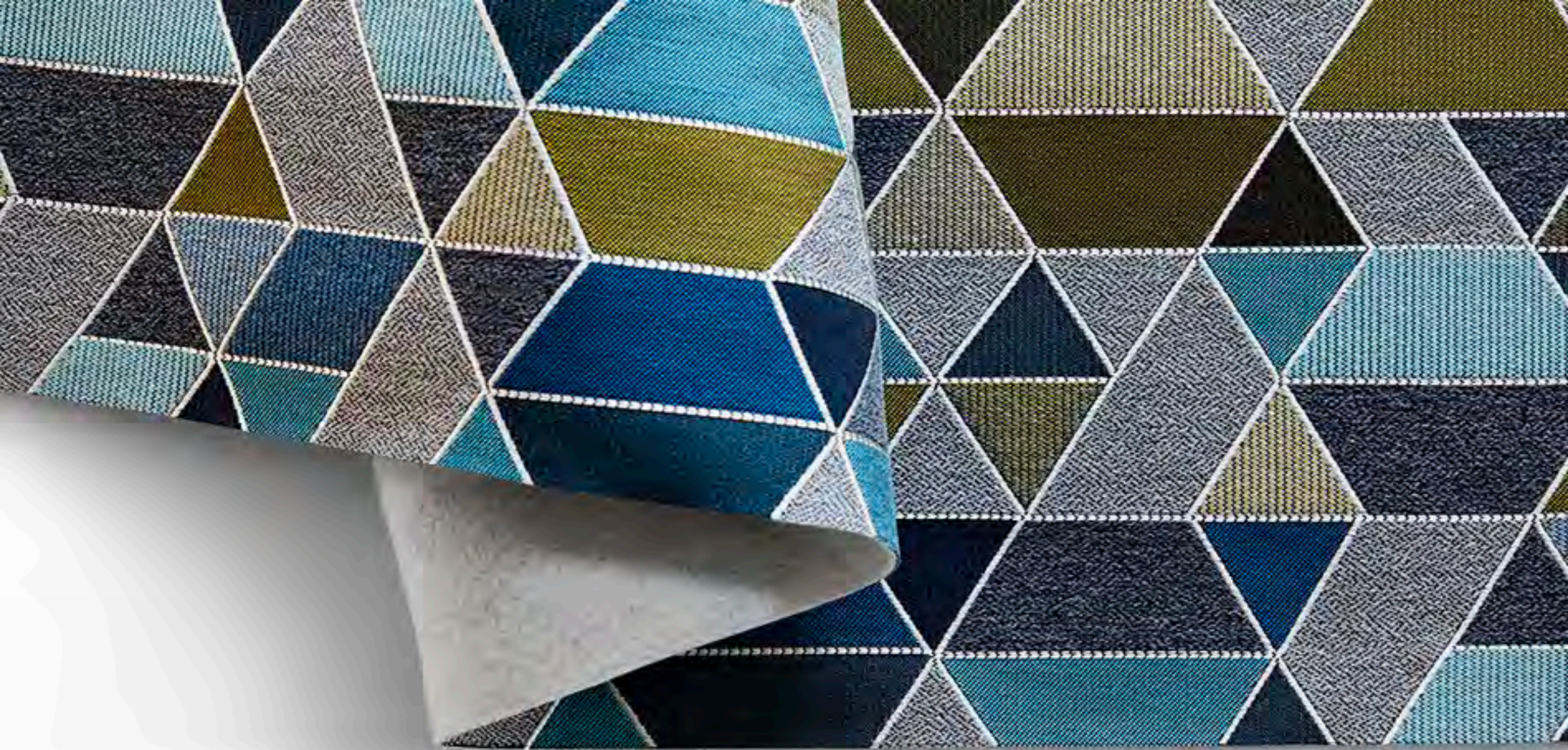
In a pilot clinical study, people sleeping with CELLIANT-powered responsive textiles averaged

18.3

more minutes of sleep per night*

* Source: CELLIANT Pilot Sleep Study, Dr. Marcel Hungs & Dr. Annabel Wang, University of California - Irvine Medical Center, 2010





IMPROVED WELLNESS. IMPROVED FABRICS.

CELLIANT infrared technology not only promotes wellness in individuals, it also enhances the fabrics it powers. CELLIANT textiles have been shown to dry up to 30% faster than traditional fabrics, inhibit the growth of odor, and help to regulate body temperature. In addition, CELLIANT is durable, will not wash out, and lasts the useful life of the product it powers.

HOW IT'S MADE

Our scientists selected naturally occurring thermo-reactive minerals, each for their unique properties. We grind this blend of minerals into an extremely fine powder.

The CELLIANT powder is then either added to a carrier (polyester, nylon or viscose) and made into a yarn or fiber, or applied as a coating on fabric.



MINERALS



POWDER



CARRIER



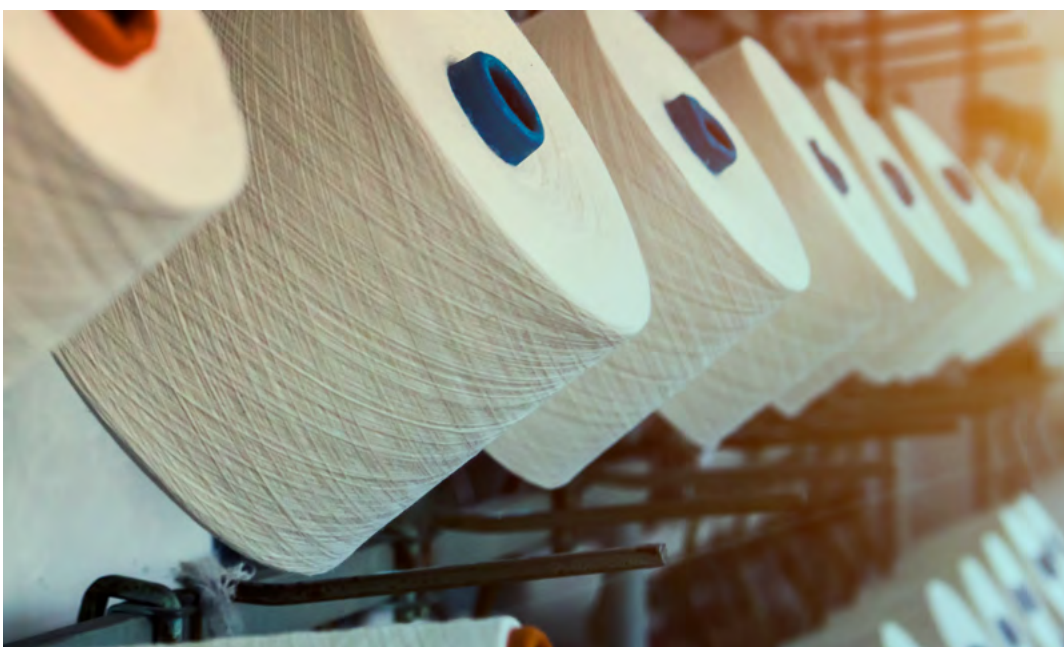
FIBER



YARN



FABRIC



Once CELLIANT is embedded, it is extraordinarily versatile, able to be woven into any product and is durable for the useful life of the product.



When used as a print, CELLIANT is easy to apply. The designs are limitless and allow for a higher concentration of CELLIANT while emitting more infrared energy.

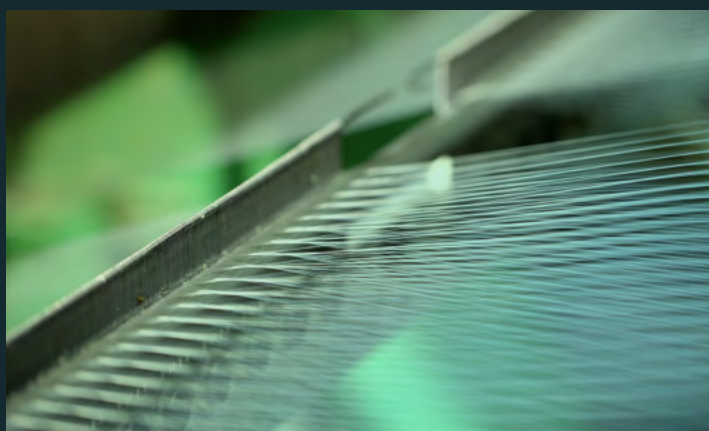
DIVERSE INFRARED TEXTILE SOLUTIONS

CELLIANT offers a myriad of carrier solutions to fit your brand's development needs. We're continually innovating to find new in-fiber and in-yarn solutions to bring you the best, most flexible, infrared textiles possible.



CELLIANT PET AND rPET

CELLIANT's mineral blend can be embedded into polyester and retains the natural characteristics of the polymer. For both polyester and recycled polyester, CELLIANT is available in pure white.



CELLIANT NYLON

When integrated into nylon, the textile has a softer hand and has advantageous dyeing properties. We are pleased to offer standard filament counts in Nylon 6. CELLIANT nylon is available in pure white.



CELLIANT VISCOSE

Developed in partnership with Kelheim Fibres, CELLIANT Viscose blends beautifully with cotton, micromodal, Lyocell, wool varieties (including cashmere), and other fibers, and is ideal for performance wear, luxury loungewear, casual wear and bedding.

CELLIANT COMES IN A VARIETY OF MEDIUMS:

STAPLE FIBER

SPUN YARN

FILAMENT YARN

INSULATION

FABRIC

NON-WOVEN

PRINT/COATING

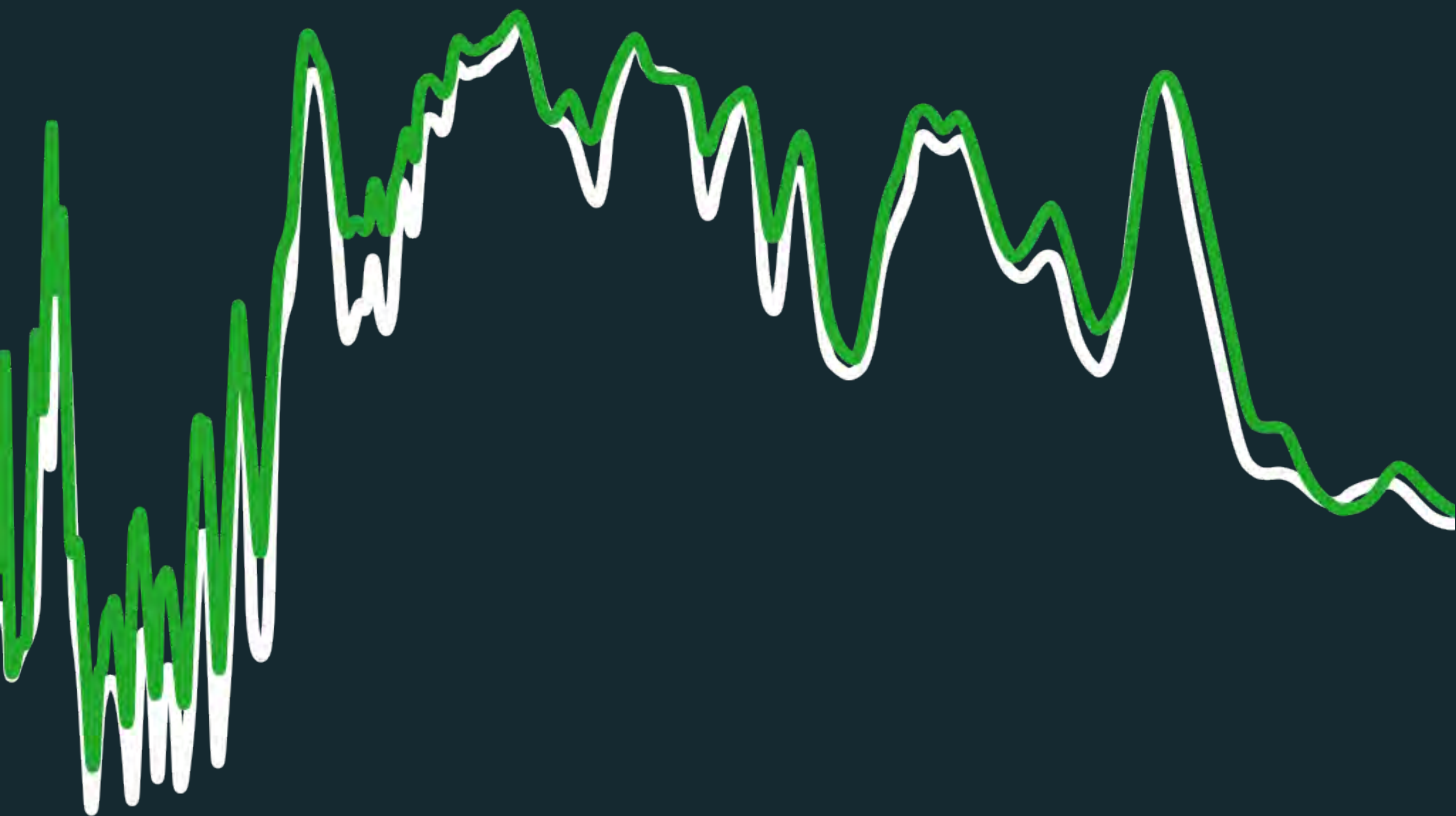
A WIDE RANGE OF CUSTOM BLENDS ARE AVAILABLE.



PURE WHITE CELLIANT

CELLIANT in pure white unlocks unlimited color potential. From brilliant whites to soft pastels and every color between and beyond, CELLIANT in pure white makes it possible. Pure white Celliant is available in nylon, polyester and recycled polyester fibers. Lovely white bedding, crisp white jerseys, pastel scrubs... the applications of pure white CELLIANT are limitless.





BACKED BY SCIENCE

CELLIANT has been tested and proven in 9 peer-reviewed published studies. Our Science Advisory Board works with primary investigators to rigorously test and validate the science of infrared and its benefits. This includes experts in the fields of photobiology, nanotechnology, sleep medicine, human physiology, diabetes and wound care. The Science Advisory Board's primary mandate is to design and execute tests to quantify and validate CELLIANT's effects, uncover new benefits, and research and discover new innovations.





ENSURING QUALITY

CELLIANT has a localized effect and therefore the product design, quantity and placement of CELLIANT must meet stringent requirements in order to satisfy the expectations of the consumer when purchasing a CELLIANT product. Authorized CELLIANT partner mills ensure that products meet the highest quality standards. We test products before they go to market at independent third-party labs and in our IRB certified clinical laboratory to ensure all products meet the established usage requirements and integrity standards.



ASH TESTING

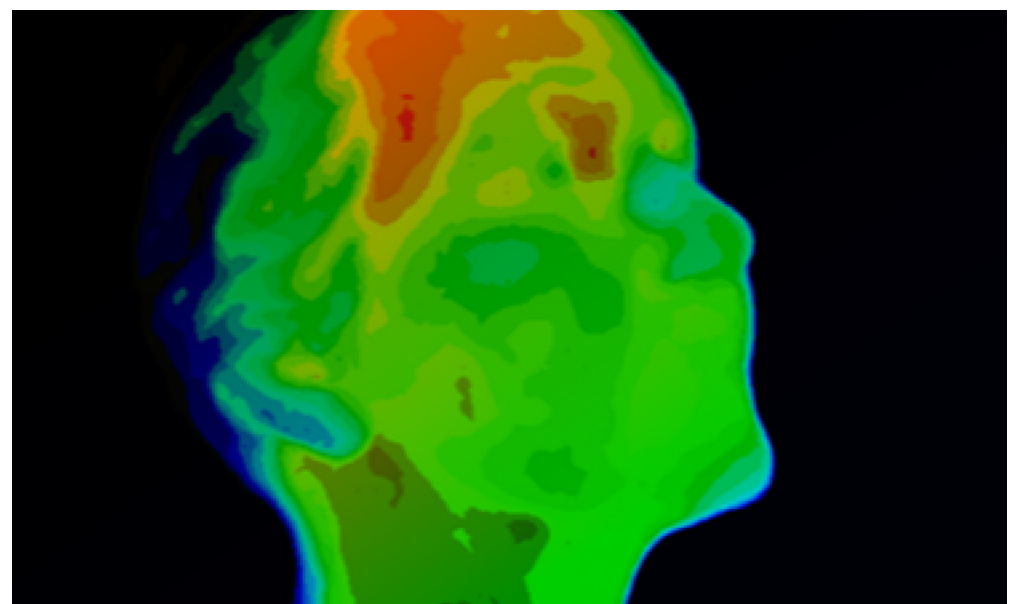
Ash testing proves CELLIANT minerals are present and in their correct amounts. CELLIANT is verified as the active ingredient in any product line by heating the sample to 800+C for 4 hours to burn off the carrier and eliminate all organic material. This proves the presence of CELLIANT minerals to the level prescribed by our usage guidelines. Ash testing is completed by a world-class, independent, third-party laboratory in the USA.



EMISSIONITY TESTS

Emissionity testing proves CELLIANT-powered fabric emits IR at the proper levels.

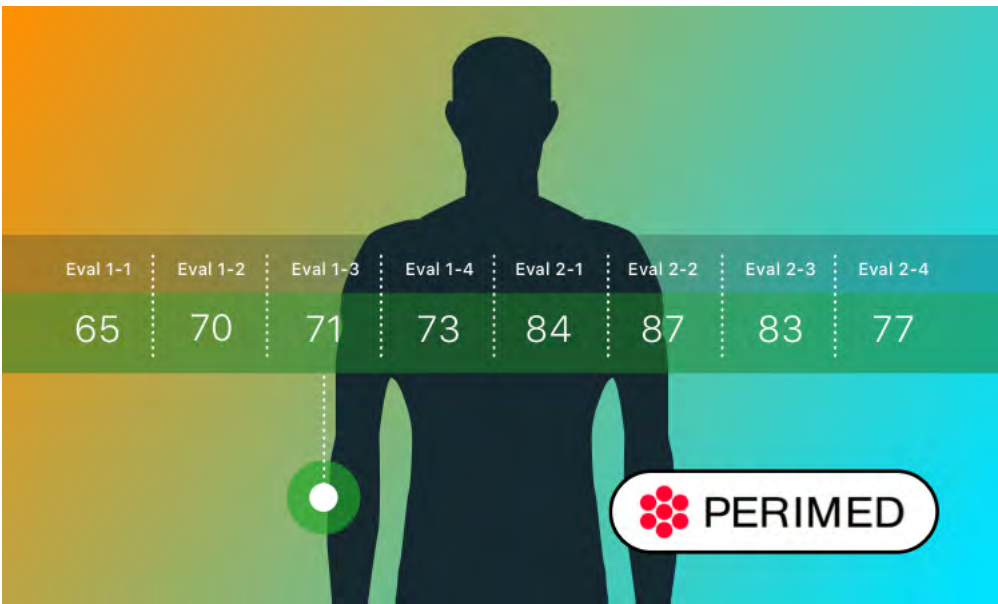
CELLIANT is proven to increase spectral absorbency up to 10x in emissionity tests that measure CELLIANT's ability to generate and emit infrared energy.* CELLIANT products emit an average increase of .25mW/cm² IR generated in the 2.5-20 μm range at 35°C. Emissionity testing is completed by a third-party laboratory in the USA.



* **Source:** Infrared Radiative Properties and Thermal Modeling of Ceramic-Embedded Textile Fabrics, Biomedical Optics Express, 2017 Dr. David Anderson, John Fessler, Matthew Pooley, Scott Seidel, Dr. Michael R Hamblin, Haskell Beckham and Dr. James F Brennan - Exponent

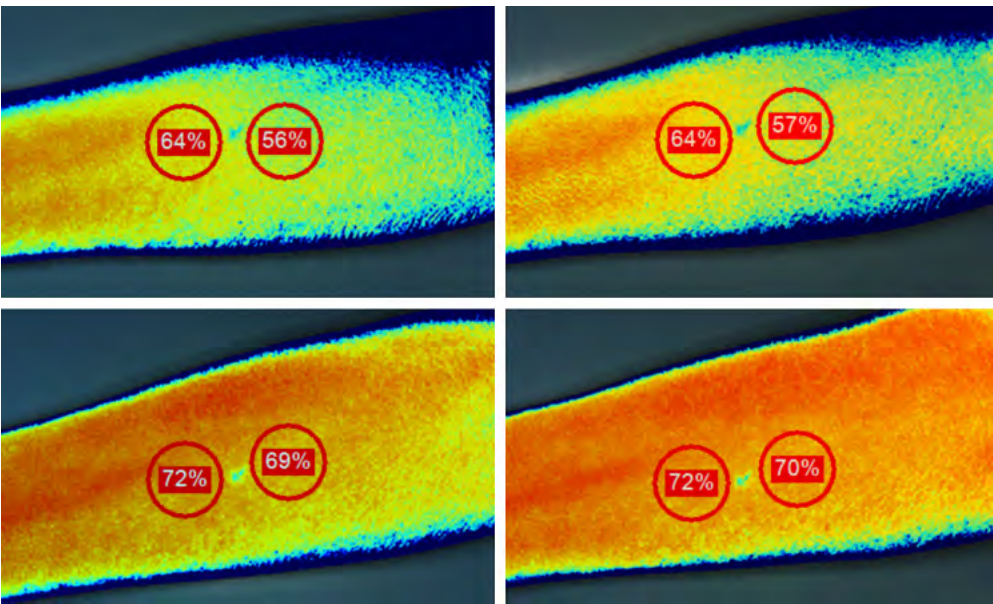
TRANSCUTANEOUS OXIMETRY PRESSURE TESTING

Transcutaneous Oximetry Pressure (TcPO2) testing proves test subjects wearing or sitting on CELLIANT-powered products achieve a minimum of 7% increase in TcPO2. This testing measures the amount of oxygen availability in the tissue of human test subjects. To date, CELLIANT has conducted over 1,000 TcPO2 tests. This test is completed in our in-house IRB certified clinical laboratory using a PeriFlux 6000 TcPO2 System.



HYPERSPPECTRAL IMAGING

Hyperspectral Imaging (HSI) proves CELLIANT passes a threshold of a 6% increase in Tissue Oxygen Saturation (StO2) to show efficacy. This test is completed in our in-house IRB certified clinical laboratory using a Kent Imaging Snapshot NIR V3.0 machine .





SUSTAINABLE & ETHICAL BUSINESS

Environmental sustainability and ethical business is embedded in every decision we make. CELLIANT minerals are non-conflict and ethically sourced, we partner with brands to streamline the supply chain, and we manufacture CELLIANT in the USA.

Recycled polyester is available in certain regions, with more coming soon.

CELLIANT Viscose is our newest carrier fiber. It's nature-based and certified by FSC® or PEFC™, which guarantees the origin in sustainably managed farms. In addition, our partner Kelheim Fibres was awarded a green shirt in Canopy's 2020 Hot Button Ranking. This indicates a leadership role in raw material sourcing.

POWERING WORLD-CLASS BRANDS

CELLIANT technology powers brands across multiple industries and products – everything from apparel to mattresses and bedding, wetsuits to office furniture, uniforms to products for animals.

These are just some of our incredible brand partners.





PARTNERSHIP & LICENSING

CELLIANT is an ingredient brand that works with companies and innovators of all sizes to integrate our proprietary formula into their product lines. Our global team works with each potential partner to determine the best application and supply chain solution to meet their needs.

We license our technology to brand partners. We offer our raw materials at cost, which reduces a brand's barrier to entry and risk, enabling the lowest possible cost to add CELLIANT. As products are sold, we collect a sales royalty based on the value we provide to differentiate your brand from competitors with unique and unparalleled health and wellness benefits.

WHY CELLIANT?

- ✓ Differentiate your products in a crowded marketplace with a science-backed, clinically proven technology that has regulatory status in numerous countries and provides a unique selling proposition.
- ✓ Provide consumers the lifestyle gains they're seeking with textiles that deliver a host of health and wellness benefits.
- ✓ Benefit from the cachet of an ingredient solution that is the Kleenex® of infrared (IR) responsive textiles and gives you pricing power.
- ✓ Command a premium for your products with CELLIANT, the leader in infrared (IR) responsive textiles.

GET IN TOUCH

hello@celliant.com

