

# A STATE OF THE ART BIOMAT

## AMETHYST BIOMAT 7000MX

THE BIOMAT IS A PRODUCT OF MODERN TECHNOLOGY  
WITH PROVEN EFFICACY

CRAFTED BY HIGHLY SKILLED  
SCIENTISTS AND ENGINEERS



A BREAKTHROUGH  
IN MEDICAL  
SCIENCE



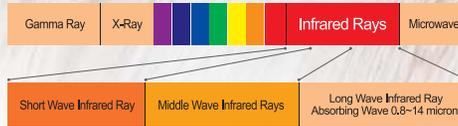
### Biomat

#### How does it work?

- 1 Unlike an electric blanket which uses electric coils to create heat, the Biomat uses a combination of fabrics and Amethyst stones to generate far infrared rays which is then transferred to the body as heat. The heat comes from friction generated within the body through the effects of far infrared rays. Far infrared rays warm the inside of your body and the part of your body making contact with the Biomat.
- 2 Should the temperature of any part of the Biomat exceed the set temperature, the thermal sensors distributed throughout the Biomat will cut off the electric current. When the Biomat reaches the selected temperature, the negative ion lights will come on and will stay on until the Biomat needs to raise the temperature. The Biomat comes with an external control box which allows you to adjust the desired temperature and usage time (between 2, 4, 8, or 12 hours). As an added safety feature, when the controller is set to 122°F or higher, it will automatically step down to 113°F after 4 hours.



### 6.5 & 10 Micron Infrared Rays



Far infrared rays are part of the electromagnetic spectrum that has been studied for various health benefits. It provides warmth and relaxation similar to the energy that radiates from the sun. These rays not only benefit muscles on the surface of the body, but all cells in the deepest parts of the body.

### Specifications

- 1 **Far Infrared Rays** - The combination of natural Amethyst and Hyron cotton layer generates far infrared rays (6-12 Microns) that the human body can easily absorb.
- 2 **Negative Ions** - Natural Tourmaline and the TOCA (Tourmaline) layer generates negative ions.
- 3 **EMF** - Special layers of fabric in conjunction with the Biomat EMF Interceptor effectively reduces electromagnetic waves.

#### What does the Biomat EMF Interceptor do?

The Biomat EMF Interceptor acts in the same way as a lightning rod by safely conducting the EMF energy away to the ground. With this feature, you can effectively reduce exposure to EMF for yourself and your family.

## RICHWAY BIOMAT Licenses/Certifications

**U.S. FDA** U.S. Food and Drug Administration (FDA)

**CQC** China Electric Safety

**KOREA MFDS**

The Ministry of Food and Drug Safety (Korea) approved medical device  
PRO Item Permit NO.: 13-279 / MINI Item Permit NO.: 13-234  
QUEEN Item Permit NO.: 13-1017 / SINGLE Item Permit NO.: 13-1018



**JAPAN FDA**

Ministry of Health, Labour and Welfare  
approved medical devices (BG10300403)



**J.ELECTRIC SAFETY**

Permitted by the Japanese Electrical Safety Authority (HW 2013-0145)



Good Manufacturing Practice (GMP)  
approved manufacturer (No. 3965)

**ISO 9001**

Approved as an international electrical equipment manufacturer (KQC-4506)

**ISO 13485**

Approved as an international medical device manufacturer (M-0318/14)



**International Electrical Safety**  
Approval (CE 2013-0142)



**Korean Electrical Safety**

Korean Electrical Safety Number  
PRO: HH071485-13002A  
MINI: HH071485-13001A

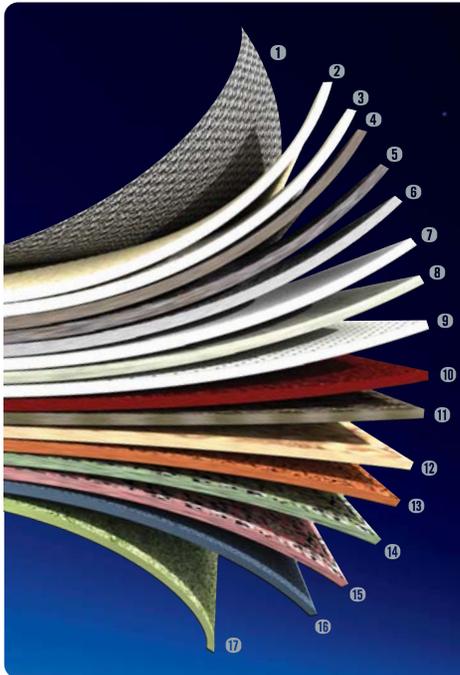


Russia Electrical Safety Approved

**Beijing Electrical Safety Laboratory**

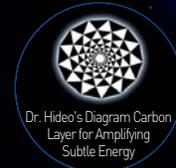
Chinese Manufacture Certification  
HOUSA1-20141771(GB4706.1-2005)

# Unique Innovation in Bio Technology



## The Biomat's 17 layers consist of:

- 1 Surface material: Silicon urethane with cotton
- 2 Waterproof layer
- 3 Amethyst layer for transferring natural infrared rays
- 4 Hyron cotton layer for thermal insulation
- 5 TOCA layer for natural negative ions
- 6 Nano Copper fabric layer
- 7 Quantum Energy layer (peach and grape seeds)
- 8 Copper fabric layer for electromagnetic interception
- 9 Carbon fiber layer for electromagnetic interception
- 10 Fiberglass layer
- 11 Thermal preservation layer
- 12 Silicon and Teflon reverse currency heating layer with EMF interception
- 13 Nonwoven fabric layer
- 14 Aluminum layer for reflection of infrared rays
- 15 Nonwoven fabric layer for heat preservation
- 16 Thermal protection layer
- 17 Bottom material: High quality cotton with brass pattern



## Benefits of the Biomat

### 1 Temporary relief of:

- Minor muscle pain
- Minor joint pain and stiffness
- Joint pain associated with arthritis
- Muscle spasms
- Minor sprains
- Minor strains
- Minor muscular back pain

### 2 Relaxation of muscles

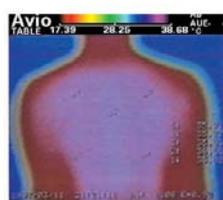
### 3 Temporary increase of local circulation

## What is Thermotherapy?

Thermotherapy is the therapeutic application of any substance to the body that adds heat to the body resulting in increased tissue temperature.<sup>(1)</sup> Thermotherapy also increases blood flow which facilitates tissue healing by supplying protein, nutrients, and oxygen at the site of injury. Studies have shown that a 1°C increase in tissue temperature is associated with a 10% to 15% increase in local tissue metabolism.<sup>(2)</sup> The increase in tissue metabolism assists in the healing process by removing the metabolic by-products of tissue damage and provides the environment for tissue repair.



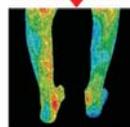
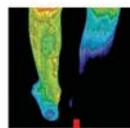
Heating Pad



Biomat

## Why use far infrared?

The circulatory system is responsible for the delivery of oxygen-rich blood and the removal of wastes.<sup>(3)</sup> Far infrared rays have been found to have a blood circulation enhancing effect in human skin and eventually induces an increase in temperature of the body tissues.<sup>(4)</sup>



## Increase of Body Temperature

Studies have indicated that during thermotherapy, or hyperthermia, the body is exposed to higher temperatures which causes a significant increase in skin microcirculation, skin temperature and core temperature.<sup>(5)</sup> Inducing an artificial fever can provide benefits to your immune system as a type of immune cell, or lymphocyte, called a CD8+ cytotoxic T-cell, helps destroy infected cells.<sup>(6)</sup>

## Heat Shock Proteins

Heat shock proteins (HSPs), or stress proteins, are present in all organisms and all cells of all organisms.<sup>(7)</sup> Published studies have shown that exposures to environmental stress, such as heat shock, induces the body to produce HSPs that function as molecular chaperones. Molecular chaperones are a type of protein that

assists in the proper folding of proteins and quality control.<sup>(8)</sup> Improper folding of proteins and damaged proteins have been reported to be the cause of a large number of diseases.<sup>(9)</sup>

43.0 41.0 40.0	Protein activation H.S.P. Bacteria and viruses are susceptible to heat	When the body temperature is decreased by <b>1 degree</b>
37.0 36.5	3,000 essential enzymes are activating	36% of immune functions decline! 12% of basic metabolism declines! 50% of enzymatic activities decline!
35.5 35.0	Difficulty in autonomic nervous system Immunity greatly decreased	

From Dr. Yoshimizu's clinical study report

## Negative Ions

Negative ions, or anions, are atoms that have a greater number of electrons (-) than protons (+), which result in a negative charge. They are abundant in natural environments such as forests, mountains, waterfalls and oceans. In a 2013 report on the effects on negative ions, studies were discussed about the positive effects of negative ions on physiological functions and human health.<sup>(10)</sup>

## References

- (1) Scott F. Nadler, Kurt Weingand, Roger J. Kruse - The physiologic basis and clinical applications of cryotherapy and thermotherapy for the pain practitioner
- (2) Get from Scott's paper (12)
- (3) American Heart Association "the circulatory system"
- (4) Dr. Inoue and Dr. Kabaya's paper entitled "Biological activities caused by far-infrared radiation"
- (5) Balfour MN, Maurer AJ: "Effect of different methods of thermotherapy on skin microcirculation." *American Journal of Physical Medicine & Rehabilitation* 83 (4): 292-297.
- (6) Mace, T. A., L. Zhong, C. Kipatrick, E. Zynda, C.-T. Lee, M. Capitano, H. Mindeman, and E. A. Repasky. "Differentiation of CD8 T Cells into Effector Cells is Enhanced by Physiological Range Hyperthermia." *Journal of Leukocyte Biology* 90.5 (2011): 951-62.
- (7) Li Z. and Srivastava, P. 2004. "Heat-Shock Proteins." *Current Protocols in Immunology*. 58:1T.A.1T.1-A.1T.6.
- (8) Adachi, Hiroaki, Masahisa Katsuno, Masahiro Waza, Makoto Minamiyama, Fumiko Tanaka, and Gen Sobue. "Heat Shock Proteins in Neurodegenerative Diseases: Pathogenic Roles and Therapeutic Implications." *International Journal of Hyperthermia* 25.8 (2009): 647-54.
- (9) Chaudhuri, Tapan K., and Subhankar Paul. "Protein-misfolding Diseases and Chaperone-based Therapeutic Approaches." *FEBS Journal* 273.7 (2006): 1331-349.
- (10) Piro, Olimpia, and La Ragona, Francesco. "There's Something in the Air: Empirical Evidence for the Effects of Negative Air Ions (NAI) on Psychophysiological State and Performance." *Research in Psychology and Behavioral Sciences*. 1.4 (2013): 48-53.

## CONTACT NUMBER

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease. This device does not cure cancer. It does not intend to provide diagnosis or treatment and only claims the statements in the medical device listing of intended use approved by the FDA. Specific medical advice should be obtained from a licensed health care practitioner. The information and personal testimonies about this device do not reflect any medical claims.