

The background of the entire image is a dense, repeating pattern of small, square-shaped ceramic tiles. The tiles are in two colors: white and a warm terracotta or light brown. They are arranged in a staggered, interlocking pattern, creating a textured, mosaic-like effect. The lighting is even, highlighting the smooth, slightly glossy surface of the tiles.

# The Allure of EM Ceramics

Natural and Earthy products to enrich your life



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## 1

# What is EM Ceramics?

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The term “EM” conjures images of living microorganisms used to rejuvenate rivers, reclaim abandoned land and nurture rich ecosystems in agricultural soils. EM also evokes thoughts of fresh smelling laundry, spotless households and odor-free washrooms, which are the hallmarks of advanced fermentation technology. However, the words “EM Technology” encompass much more than merely the use of live microorganisms. The power of EM extends far beyond the cellular level. Embedded within the fermentation byproducts of EM are highly beneficial substances which can be deployed in ways that transcend the living realm. EM ceramics represent an innovative application of these powerful products.

In EM Ceramics the functionality of microorganisms (EM) is retained by burning the life information of microorganisms into minerals (inorganic matter) such as stone and clay, and firing these at high temperatures. Some people get a positive feeling just by touching EM Ceramics, while others may not experience this feeling even if they use them extensively. Since different people react in different ways, we will endeavor to explain the allure of EM Ceramics in an easy to comprehend manner.

There are various types of EM Ceramics, including those used in water, those used in oil in kitchens, those installed indoors, and portable types that can be used in home gardens, and for agriculture, and construction.

# The Properties Of Ceramics

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## WHAT ARE CERAMICS?

The raw materials used in traditional ceramics are minerals such as clay, silica stone and feldspar. Ceramics are inorganic, non-metallic solids that have been shaped and then hardened by firing at high temperatures.

Their characteristics include the fact that they do not rust, do not burn, and are harder than steel. When baked at relatively low temperatures, ceramics become porous, similar to unglazed porcelain or pumice. They are lightweight, excellent in gas adsorption, hygroscopicity, and heat insulation, though they can easily crack due to their low strength. On the other hand, when baked at high temperatures, the material becomes a viscous liquid and shrinkage occurs. When cooled to ambient temperatures it bonds quite firmly. Ceramics fired with this method will be less porous, have a denser structure, and be less brittle.

## CHARACTERISTICS DEPEND ON CONDITIONS

In short, the size and arrangement of particles will change depending on the type of substance contained in the clay used. Also how closely aligned the particles are will also differ depending on the temperature and length of firing. Thus, characteristics such as heat resistance, strength, porosity and hygroscopicity of completed ceramics depend on a combination of factors such as material, temperature, heating rate, time, atmosphere and so on. A rich assortment of variations can be created.







## The Beginning Of EM Ceramics

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### **MATERIAL THAT INCORPORATES MICROORGANISMS**

EM Ceramics were originally developed to apply the properties of EM in the field of water treatment. Even if activated EM solution is poured into a dirty river, EM will not settle in a fixed spot, thus making it hard to fully demonstrate the effects of EM. Therefore, as a way to fix EM on a river bottom, we once used porous roof tiles, etc. with invisible small holes, immersed them in activated EM solution for about a week, then submerged them in the river. This was only a temporary solution, since over time microorganisms escaped from the porous material. Just letting the materials absorb EM is insufficient to allow EM to easily settle into porous materials.

### **WISDOM OF THE SCORCHING DESERT**

At that time, EM Technology also began to be used abroad in the environmental field, and we were working on wastewater treatment in an industrial park in Egypt. Since there was no organic matter at that site, EM solution was soaked in desert sand to make “Sand Bokashi,” which was put in a waste treatment pond. After this treatment, we saw definite improvement in water quality. Under the scorching sun in the desert, where air temperatures exceed 40°C, the temperature of the sand can reach over 60°C. Since this Sand Bokashi demonstrated the properties of EM, even in extreme heat conditions, we learned an important fact: microorganisms do not die, even at high temperatures.

### **CLAY AND MICROORGANISMS**

If you only look at the inorganic nature of clay, you tend to forget the existence of microorganisms contained in the clay. According to Professor Teruo Higa, the developer of EM, “Soil is, in a sense, a mass of microorganisms.” In nature, microorganisms exist everywhere. As sand and clay accumulate and a clay layer is formed, microorganisms are mixed in. After the microorganisms decompose, the functional properties of the microorganisms remain. In other words, it is not an overstatement to say that biological information is contained in clay.

When mud builds up on a reductive seabed without oxygen, detrimental bacteria that prefer an oxidative environment cannot survive, leaving them omitted from this biological information. As a result, only the information from beneficial bacteria with revitalizing functions remains in the clay. Microorganisms and clay, the raw material for ceramics, are thus closely related, and one could even say that the microorganisms in EM and clay are quite compatible.

When EM is actually mixed into clay, excellent, finely-grained clay is produced. In ceramics fired from that clay, the properties of EM remain unchanged.

# How To Embed Biological Information

## WHY AND HOW DOES MICROORGANISM INFORMATION REMAIN IN CLAY?

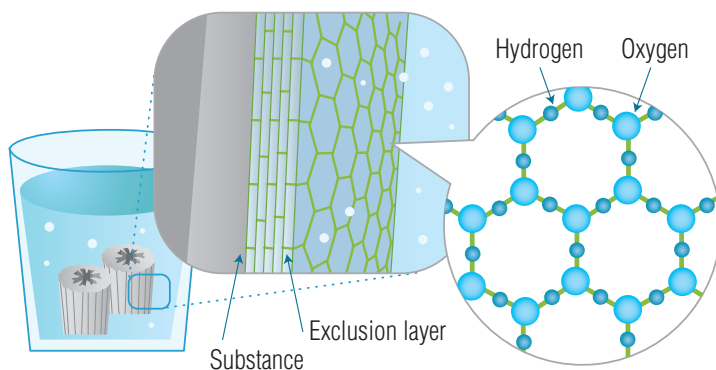
Clay consists of rock, soil, and an organisms that become fine particles over an indefinite period of time. These particles accumulate on the ocean floor, where there is no oxygen. Those fine particles are made of atoms and electrons. It is thought that the electrical-like structure that formed the original material, or an electromagnetic wave vibration pattern, became preserved as a kind of template. Since there is a medium that can copy the information from this template, it may be possible to retrieve and express this ancient biological information.

## BEAUTIFUL CRYSTAL STRUCTURE OF LIQUID WATER

When EM Ceramics are placed in water, the biological information in EM preserved by the ceramics will impact the water. As we investigated the mechanism, we came to understand some fascinating characteristics of water under the influence of EM Ceramics.

Water has a very interesting behavior on the surface of (hydrophilic) substances such as ceramics, glass, metal, plastic, skin and other substances that can be made wet by water. Normally, the chemical formula of water is  $H_2O$ , but on a hydrophilic surface the water is actually  $H_3O_2^-$ . It has a structure with a thickness of one water molecule, and a layer in which oxygen (O) and hydrogen (H) combine in a regular hexagon in a honeycomb form, stacked in many layers. Despite the fact that water is a liquid, this is a state in which an ordered structure is formed as if it were an individual entity. This structure is called an “exclusion layer” because impurities other than water molecules cannot enter the honeycomb structure.

**Molecular structure of “exclusion layer”**



## DNA INFORMATION IS TRANSMITTED AND REPRODUCED BY WATER

Another interesting study by Dr. Luc Montagnier, a French virologist, 2008 winner of the Nobel Prize in Physiology or Medicine, confirmed that it is possible to copy DNA (gene) information as electromagnetic wave signals in water and rematerialize this in another location.

What is the significance of these experimental results? Any given substance has an inherent electromagnetic wave signal and if the electromagnetic wave signal can be recorded somewhere, even if the substance is lost, and even over a long distance or after some time has passed, it is possible to exactly reproduce the same substance as long as you have the electromagnetic wave signal and the materials that form the template.

## UNDERSTANDING THE EFFECTS OF EM CERAMICS

The existence of the crystal structure of the liquid (water) as an exclusion layer suggests that biological information held by EM Ceramics can be copied to water and transmitted. Just like Dr. Montagnier’s DNA experiment, it is believed that the electromagnetic wave signal of EM is transmitted from the water in which EM Ceramics are immersed. Although future verification is important, our understanding of what cannot be seen is deeper than it was ten years ago. Technology is steadily making progress. We anticipate that our collective understanding of the essence of EM Ceramics will further evolve, and that we will develop a much clearer vision of its function.

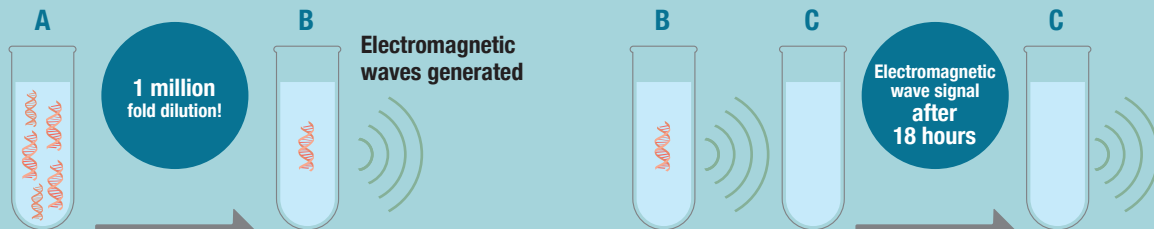
Today, EM Ceramics of various shapes and manufacturing methods have been created for a variety of applications. As new ideas arise, the range of potential applications will be limitless. Here we would like to present a full picture of EM Ceramics and how they are being applied. Pottery and porcelain have been a part of lives from ancient times, and are part of our everyday lives in modern times. In much the same way, EM Ceramics can be widely utilized in the household to make our lives healthier and more fulfilling. In the pages that follow we would like to introduce a number of concrete application methods.



# DNA Information Transcription and Transmission

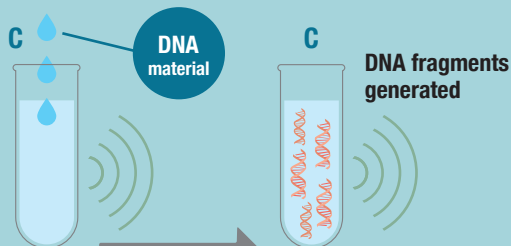
## Experiment by Dr. Luc Montagnier

1 million fold dilution! Electromagnetic waves are generated



1. A DNA (gene) fragment having a known base sequence (length 104 bases) was prepared, and when this DNA aqueous solution was diluted 1 million times, electromagnetic wave signals (frequency 500 to 300 Hertz) were emitted. (If the DNA is too dense, something similar to mutual interference occurs with the electromagnetic wave signal and it cannot be detected.)

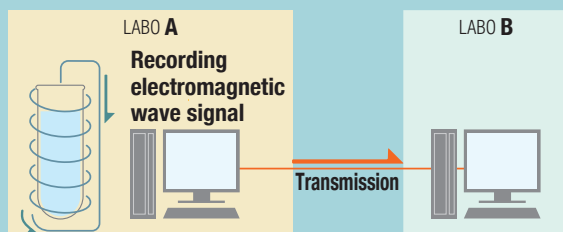
2. We placed a test tube containing only pure water next to a test tube containing the DNA fragment emitting the electromagnetic wave signal. Then, after 18 hours, it was confirmed from the pure water test tube that the same electromagnetic wave signal as the DNA fragment filled test tube was being emitted. In order for this phenomenon to occur, the Schumann frequency (a low frequency electromagnetic wave of about 7 Hz), which is the resonance frequency of the earth, must be present.



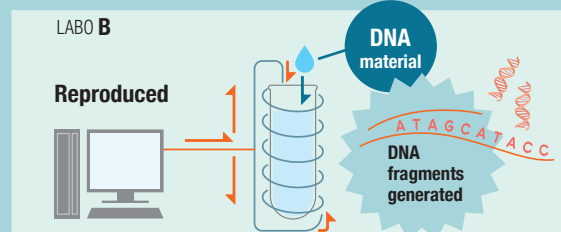
3. When a reaction solution containing a lot of DNA material was placed in a pure water test tube, a large number of DNA fragments were generated (amplified). The length of the DNA fragments were 104 bases. (Normally, to amplify DNA, the original DNA fragment to be copied is necessary. In this test, the pure water test tube contained none of the DNA fragment.)



4. The character sequence of the amplified DNA fragment was examined. As a result, 102 nucleotides out of the 104 characters in length matched the sequence of the DNA fragment contained in the adjacent test tube (a 98% accuracy of amplification). (Dr. Montagnier conducted the same experiment 22 times and confirmed the reproducibility.)



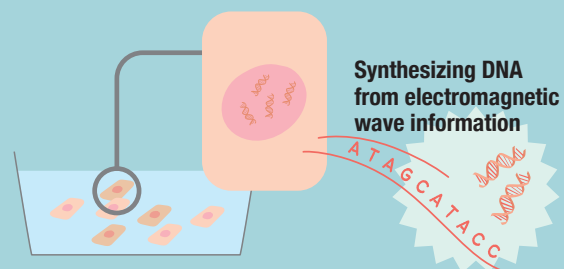
5. In Laboratory A, electromagnetic wave signals transmitted from DNA fragments of known base sequences are "recorded" using a personal computer. The information of the digitally recorded electromagnetic wave signal is transmitted to Laboratory B at a remote place as a computer file via the Internet.



6. In Laboratory B a test tube containing only pure water was made to listen to the "recorded" file whose electromagnetic wave signal was sent from laboratory A. Thereafter, when a reaction solution was added to the test tube, amplification of the DNA fragment was confirmed. In addition, it was confirmed that this fragment was identical to the base sequence of the known DNA fragment in Laboratory A.



7. We prepared water emitting electromagnetic wave signals derived from specific DNA and added the water into the culture medium of human cultured cells. (This was an experiment to verify whether DNA amplification by electromagnetic wave signals naturally occurs in organism cells, not only artificial amplification using DNA amplification apparatus.)






8. After several days, it was confirmed that the specific DNA was synthesized in human cultured cells. (It has also been confirmed that human cultured cells die when a lethal gene that causes human cultured cells to die is used as a specific DNA.)

# EM Ceramics Product Application List


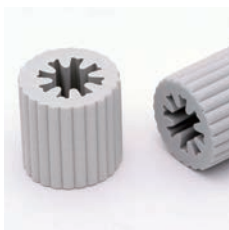




## Water Purification

EM Ceramics include a low-temperature firing type that is fired at 800 to 900°C and a high-temperature firing type that is fired at 1200 to 1300°C. Unglazed ceramics made by low temperature firing are porous and quite able to adsorb dissolved substances including chlorine, and can be used in many applications, such as in water for animal husbandry, ponds and wastewater treatment.

On the other hand, the high-temperature fired “hard baked ceramics”, such as “Pipe 35” and “Ring Stone” are magnetized and have far infrared effects. They activate water and improve taste, so they are suitable for drinking water and cooking, and can also be used in bathtubs, aquariums, gardening water, and so on. There are also EM Ceramics products that have more targeted use. “EM E-Kagen for Water” is suitable for drinking water, “EM E-Kagen for Rice” can be used for cooking rice, and “EM E-Kagen for Bath” is suitable for use in a bathtub.

	Item Name	Special Information	Use & Usage Guideline
	EM Pipe S-type (low temp)	<ul style="list-style-type: none"><li>It is porous and has a high ability to adsorb and remove chemicals including chlorine.</li><li>The pipe shape is suitable for places with a large surface area and water flow.</li></ul> <p>*Generally replace every 6 month.</p>	Water storage tanks and sprinkling tanks, ponds and ornamental fish tanks, etc.  1 bag (1L) can accommodate up to 1m³ of water.
	EM Pellet S-type (low temp)	<ul style="list-style-type: none"><li>It is porous and has a high ability to adsorb and remove chemicals including chlorine.</li><li>The pellet type is easy to take care of because it is hard to break and easy to clean.</li></ul> <p>*Generally replace every 6 month.</p>	Water storage tanks and sprinkling tanks, ponds and ornamental fish tanks etc.  1 bag (1L) can accommodate up to 1m³ of water.
	EM Pipe K-type (high temp)	<ul style="list-style-type: none"><li>Reduces the group structure (cluster) of water molecules and activates them.</li><li>Suppresses oxidation.</li><li>It is magnetized and has far-infrared effects. Softens the flavor of the water so you can enjoy mild tasting water.</li></ul> <p>*When dirt or slime adheres to the surface, wash them and use them repeatedly.</p>	For drinking water Use at a rate of 200 g per 1.5 liter of water.  10 bags per 1m³ reservoir.





Item Name	Special Information	Use & Usage Guideline
 <p><b>EM Pellet K-type (high temp)</b></p>	<ul style="list-style-type: none"> <li>Reduces the group structure (cluster) of water molecules and activates them. Suppresses oxidation.</li> <li>It is magnetized and has far-infrared effects. Softens the flavor of the water so you can enjoy mild tasting water.</li> <li>The pellet type is easy to manage because it is hard to break and easy to clean.</li> </ul> <p>*When dirt or slime adheres to the surface, wash them and use them repeatedly.</p>	<p>For drinking water</p> <p>Use at a rate of 200 g per 1.5 liter of water.</p> <p>10 bags per 1m3 reservoir.</p> <p>Use to preserve seasonings.</p>
 <p><b>EM Pipe 35</b> <b>Size: 35x35 mm</b></p>	<ul style="list-style-type: none"> <li>Reduces the group structure (cluster) of water molecules and activates them.</li> <li>Suppresses oxidation.</li> <li>Has far infrared effects.</li> </ul>	<p>Use it in drinking water, oil (deep frying oil, to preserve it), vases, aquariums, bathtubs, etc.</p> <p>For drinking water</p> <p>Use two pipes per 100 liters of water.</p>
 <p><b>EM Ring Stone</b> <b>S size L size</b></p>	<ul style="list-style-type: none"> <li>Reduces the group structure (cluster) of water molecules and activates them.</li> <li>Suppresses oxidation. It is magnetized and has far infrared effects.</li> <li>Softens the flavor of the water so you can enjoy mild tasting water</li> </ul>	<p>Use it in drinking water, oil (deep frying oil, to preserve it), vases, aquariums, bathtubs, etc.</p>
 <p><b>EM E-Kagen for Water</b> <b>Length: about 50 mm</b> <b>Thickness: about 13 mm</b></p>	<ul style="list-style-type: none"> <li>If you put "EM E-KAGEN for Water" in a pitcher, it will make the water milder and better tasting.</li> <li>You can also put it in water heater pots.</li> </ul> <p>*Generally take it out once a month and wash it.</p>	<p>For drinking water</p> <p>Use one per 2 liters of water.</p>
 <p><b>EM E-Kagen for Rice</b> <b>Length: about 40mm</b> <b>Thickness: about 25mm</b></p>	<ul style="list-style-type: none"> <li>For those concerned about discoloration and odor when keeping rice warm in a rice cooker</li> <li>Use EM E-Kagen for Rice while cooking rice, and then you will have fluffy and tasty rice.</li> </ul>	<p>Use one per batch of rice</p>
 <p><b>EM E-Kagen for Bath</b> <b>Length: about 80 mm</b> <b>Thickness: about 13 mm</b> <b>(with suction cup)</b></p>	<ul style="list-style-type: none"> <li>If you put "EM E-Kagen for Bath" in your bathtub, hot water will be softer.</li> <li>The suction cup is safe because it uses safe materials that are also used in children's toys.</li> <li>Please attach with the suction cup so that the whole ceramic piece is in the hot water in the bathtub.</li> </ul> <p>*When slime, etc. occurs on the surface, please remove it and wash it with water.</p>	<p>Place one in a bathtub.</p>

## EM Ceramics Product Application List

### Measures Against Sick House Syndrome

Chemical building materials used for building new houses and renovations may cause chronic fatigue, autonomic nervous disorders, allergy, hormonal disorders, etc. Such health concerns are called “Sick house syndrome,” and EM Ceramics are effective in treating this as well. When EM

Ceramics powder is mixed in paint, adhesive, concrete, etc., EM Ceramics adsorb and remove the chemical substances that cause bad odors, thus eliminating them. They are also effective for speeding up drying and delaying deterioration. “EM Super Cera Sosei C” is best for these sick house countermeasures. Also, “EM Ceramics for Indoor Use” remove formaldehyde, which has an adverse effect on the human body, and it is effective for regulating humidity control and odor elimination, etc. “EM Ceramics for Under Floor Use” is effective for humidity control, to combat mold, as an insect repellent, for sterilization, and formaldehyde removal, etc.

	Item Name	Special Information	Use & Usage Guideline
	<b>EM Super Cera Sosei C</b>	<ul style="list-style-type: none"> <li>EM Ceramics powder developed for sick building and concrete degradation measures</li> <li>Use it by mixing in concrete, paint, adhesives, etc. at the construction site.</li> </ul>	<p>For concrete 600 g per 1m<sup>3</sup> of ready-mixed concrete.</p> <p>For paint and adhesive 1/1,000 of the weight</p>
	<b>EM Ceramics for Indoor Use</b>	<ul style="list-style-type: none"> <li>It has the power to adsorb ammonia and formaldehyde, and condition the air in the room.</li> <li>It also has a humidity control effect to prevent condensation.</li> <li>[Use by date] half year (Chemical absorption ability will decline after about half year. Ability to control humidity is semi-permanent).</li> </ul> <p>*Use it in the non-woven fabric bag without opening it.</p>	<p>For indoors 1 bag in a room of 10 to 14m<sup>2</sup>. Install more in a place where high concentrations of formaldehyde are generated or in a place with high humidity.</p>
	<b>EM Ceramics for Underfloor Use</b>	<ul style="list-style-type: none"> <li>It is a humidity conditioning material that can adsorb and deodorize chemical substances such as formaldehyde.</li> <li>It absorbs moisture in a humid environment, and releases moisture in a less humid environment.</li> <li>Creates an environment where moisture-loving termites cannot live easily.</li> <li>[Use by date] Semi-permanent (Although the adsorption power of chemical substances decreases, it can be used semi-permanently as a humidity conditioning material).</li> </ul> <p>*Use it in the non-woven fabric bag without opening it.</p>	<p>For underfloor use 1 bag per 1m<sup>3</sup></p> <p>For kitchen / bathroom (high humidity) use 2 bags per 1m<sup>3</sup></p>




# Soil Improvement

Since EM is a living thing, it is important to prepare an environment conducive to EM being able to thrive. EM Ceramics function to create such conditions.

Using EM Ceramics powder combined with EM・1 makes EM's effects more stable than using EM・1 alone, and





increases soil improvement effect. Also, when you are making EM food waste compost, if you use EM Ceramics powder mixed with EM Bokashi, you can produce high quality compost with a low failure rate. In particular, "EM Super Cera Terra C" has the ability to ferment food waste without using any EM Bokashi. "EM Super Cera Ferment C (powder)", which has the finest particles, is suitable for spraying on soil with water, and "EM Super Cera Ferment C (granular)" is suitable when sprinkling by hand.

	Item Name	Special Information	Use & Usage Guideline
	<b>EM Super Cera Terra C</b>	<ul style="list-style-type: none"> <li>• Ceramics made by mixing EM with clay.</li> <li>• Fermentation will be stable and the failure rate low when used for making EM food waste composting.</li> </ul>	<p>For making EM food waste composting</p> <p>1Tbs per 300 g of EM Bokashi</p>
	<b>EM Super Cera Ferment C (powder)</b>	<ul style="list-style-type: none"> <li>• Fermentation promotion material made by mixing EM into clay, fermenting it, and grinding baked ceramics into powder.</li> <li>• Supports the functions of effective microorganisms, and creates an environment in which effective microorganisms can easily live.</li> <li>• When used together with EM・1, organic fermentation of soil and compost is synergistically promoted.</li> <li>• Since it is a fine powder, it can be mixed in when watering.</li> </ul>	<p>For seed treatment</p> <p>Lightly coat seeds</p> <p>Planting plants</p> <p>Dilute 10,000 times with a 1:2,000 diluted solution of EM・1 (or activated EM・1 solution) and irrigate, then plant.</p> <p>Coat it on sliced seed potatoes, etc.</p>
	<b>EM Super Cera Ferment C (granular)</b>	<ul style="list-style-type: none"> <li>• Fermentation promotion material in which EM is mixed into clay, fermented and baked.</li> <li>• Supports the functioning of effective microorganisms, and creates an environment where effective microorganisms can easily live.</li> <li>• When used together with EM・1, organic fermentation of soil and compost is synergistically promoted.</li> <li>• Because it is granular, it is easy to spread over the soil surface.</li> </ul>	<p>For soil improvement</p> <p>Approximately 5 g per 1m<sup>2</sup></p>

# EM Ceramics Product Application List

## Comfortable Living Spaces









There are various products on the market that focus on the features of EM Ceramics. “EM SPACE MATE” keeps living spaces pleasant and comfortable, while “EM E Cera Stickers” can be affixed any place about which you are concerned.

	Item Name	Special Information	Use & Usage Guideline
	<b>EM SPACE MATE</b> 102x63x8mm 60g	<ul style="list-style-type: none"><li>• EM kneaded into ceramics and treated so it will not get dirty or damaged easily.</li><li>• Heat resistance temperature: 120°C</li><li>• Cold resistance temperature: -20°C</li></ul>	Living Spaces - For home - For cars 2 colors ( Grey / White )
	<b>EM SPACE MATE mini</b> 42x42x5mm 10g	<ul style="list-style-type: none"><li>• EM kneaded into ceramics and treated so it will not get dirty or damaged easily.</li><li>• Heat resistance temperature: 120°C</li><li>• Cold resistance temperature: -20°C</li></ul>	For portable use - in a bag - as a strap - as a necklace 2 colors ( Grey / White )
	<b>EM E-Cera Sticker</b>	<ul style="list-style-type: none"><li>• EM Ceramics kneaded into sticker.</li><li>• Very useful as a substitute for ceramics since they are thin and light and can be attached to many things.</li></ul>	Paste on items you carry around. - Mobile devices - Laptop computer 2 colors - Black (Image of the universe) - Green (EM logo which is popular throughout the world)
	<b>Genki Acupressure Ceramic Patches</b>  Ceramics: diameter 5.5mm Adhesive tape: diameter 23mm	<ul style="list-style-type: none"><li>• These small ring-shaped ceramics work on all pressure points.</li><li>• Gentle on the skin but firm enough to hold its position.</li><li>• Skin colored tape so it is inconspicuous.</li></ul>	- EM Ceramics that can be pasted onto the body - Paste onto pressure points/



# Accessories

There are bracelets and necklaces made with EM Ceramics which can be worn as accessories. Wear EM Ceramic bracelets and necklaces to keep your mind and body healthy and happy.

Item Name	Special Information	Colors
<div> </div> <div><b>EM Necklace</b> Length: about 57 cm</div>	<ul style="list-style-type: none"><li>• Necklace combining pipe type EM Ceramics and plastic beads.</li><li>• Wear it with a matching EM Bracelet.</li><li>*The cylindrical part is EM Ceramics</li></ul>	[ 16 colors ] Black / Grey / Brown / Blue / Red / Orange / Deep Red / Pink / Dark Green / Dull Green / Pale Green / Yellow / Beige / Green / Violet / White
<div> </div> <div><b>EM Bracelet (Pipe)</b> Inner circumference: S size (16 cm) M size (18 cm) L size (19 cm) LL size (20.5 cm)</div>	<ul style="list-style-type: none"><li>• Bracelet combining pipe type EM Ceramics and plastic beads.</li><li>• Wear it with matching EM Necklace</li><li>*The cylindrical part is EM Ceramics</li></ul>	[ 16 colors ] Black / Grey / Brown / Blue / Red / Orange / Deep Red / Pink / Dark Green / Dull Green / Pale Green / Yellow / Beige / Green / Violet / White
<div> </div> <div><b>EM Bracelet (BALL)</b> Inner circumference: S size (15 cm) M size (16.5 cm) L size (18 cm)</div>	<ul style="list-style-type: none"><li>• Bracelet with EM Ceramics kneaded into acrylic beads.</li><li>• Combined with similar colored round beads.</li></ul>	[ 6 colors ] Black / White / Earth / Lemon / Orange / Green
<div></div> <div><b>EM SOSEI Bracelet</b> Inner circumference: S size (18cm) L size (20.5cm)</div>	<ul style="list-style-type: none"><li>• Bracelet with EM Ceramics kneaded into soil of Bizen ware.</li><li>• Combined with plastic beads.</li><li>• The cylindrical part is EM Ceramics</li></ul>	[ 2 colors ] Black / Deep red
<div></div> <div><b>EM SOSEI Bracelet (Black Tourmaline)</b> Inner circumference: S size (18cm) L size (20.5cm)</div>	<ul style="list-style-type: none"><li>• Black Tourmaline is added to EM Ceramics.</li><li>• Combined with plastic beads.</li><li>• The cylindrical part is EM Ceramics</li></ul>	[ color ] Black

3

## Put EM Ceramics To Use In Your Home!

Meals are one of the most essential parts of our lives, so why not try EM Ceramics in the kitchen? With a bit of ingenuity, it's easy to create a nourishing and healthy eating environment.





# In Drinking Water

## Drink safe and tasty water!

EM Ceramics make water taste smoother by reducing the size of the clusters of water molecules. Place EM Ceramics in a large container and pour tap water inside. Ideally, wait at least 10 hours before using the water for drinking or cooking.

### In a Water Pitcher



### In A Water Storage Tank

Put two bags of EM Pipe K-Type into a 2-ton water storage tank. In areas with poor water quality, we recommend you use EM Pipe or Pellet S-Type, which can absorb harmful substances. S-Type must be replaced every six months.



# In The Kitchen

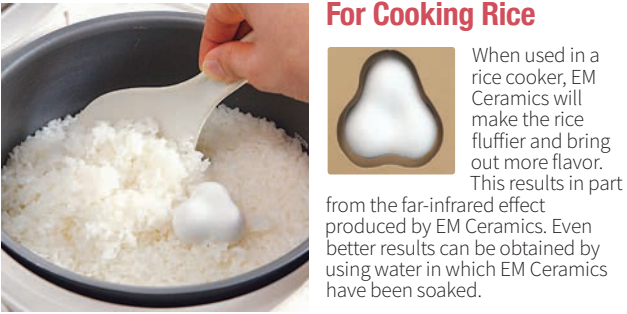
## Make Tasty Food!

Food is such an important part of our lives that we owe it to ourselves to make our meals as healthful and nourishing as possible. Let EM Ceramics help you improve the quality of the food you prepare!

### For Deep Frying



### For Cooking Rice



### For Seasoning



### In Flower Bases



### As A Deodorizer





# In The Bathroom

EM Ceramics can be safely used in the bath.



Even when we are in a hot bath, only the surface of our bodies gets warm. However, if we put EM Ceramics in the bathtub, thermal energy penetrates deeper due to the far-infrared effect and helps to warm us to the core. This application of EM

Ceramics is recommended for people with stiff muscles, lower back pain, tight shoulders and chills. Also, the hot water will feel softer.

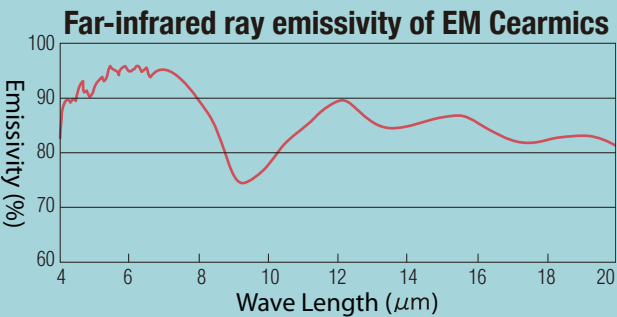
Note that the suction cups on EM E-Kagen for Bath are safe because they use materials approved for children’s toys.



## Ceramics That Emit Far-Infrared Rays Have Good Affinity To The Human Body



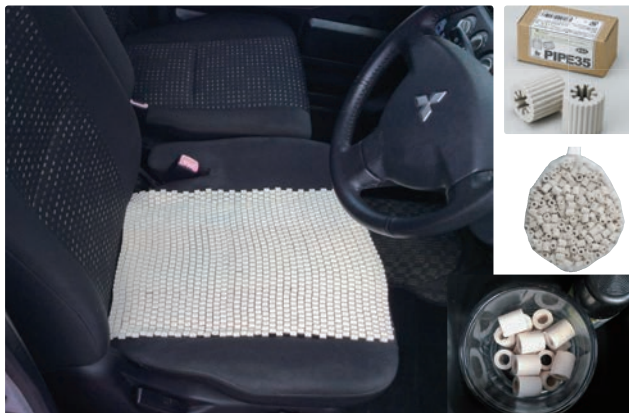
Some EM Ceramics emit weak far-infrared rays. People believe that far-infrared rays warm up substances via radiation of heat. However, the effect is not the result of heat transmission, but rather the product of electromagnetic waves. When far-infrared rays strike an object, they impart energy and cause whatever material absorbs them to self-heat. Water molecules and the human body have a high affinity for wavelengths of 3-10 micrometers, which in the far-infrared portion of the electromagnetic spectrum. Measurements of electromagnetic emissions from EM Ceramics fired at high temperature conform that at least 90% of emissions are in the range of 5 to 8 micrometers, which means that they are ideally suited to produce a warming effect in the human body.



## Indoor Living Space

**Use EM Ceramics to create a more comfortable living space.**

Having a comfortable and quality living space is important for all of us. EM Ceramics can be used throughout the house to make your space more pleasant. It can be used in your shoe box, car and toilet, just about anywhere!



### To deodorize and dehumidify

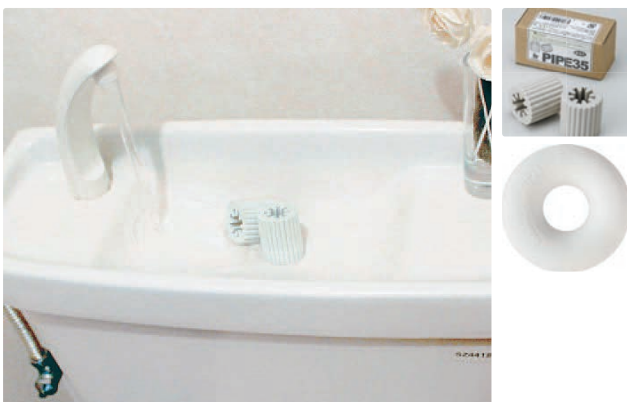
Wrap EM Ceramics in a cloth and put them in shoes to deodorize and dehumidify.

### For deodorizing cars

Cars have very distinct odors, but if you place EM Ceramics inside, they will freshen the interior and produce a clean smell. For those who drive for a long time, floor cushions incorporating EM Ceramics are recommended. The far-infrared ray effect will make driving less stressful on the back.

### To prevent odor in the toilet and reduce stains in the toilet bowl

EM Ceramics absorb and remove ammonia, which is a source of bad smells in the toilet. Placing EM Ceramics in the toilet tank makes it easier to clean stains that accumulate in the bowl. It is even more effective when used in combination with EM-1.



## Indoor & Underfloor

### Formaldehyde Absorption, Humidity Control And Deodorization

EM Ceramics for Indoor Use have an amazing ability to absorb ammonia and formaldehyde and regulate the air in the room. They can even control humidity and prevent condensation. For optimum effectiveness, they should be replaced every six months.

### Humidity Control And Termite And Mold Countermeasures

EM Ceramics for Underfloor Use contains three varieties of EM Ceramics which excel in removing harmful substances and controlling humidity in indoor spaces. In a humid environment they absorb moisture, then release it as the environment dries out. Place them under floor boards to create an environment less suitable to moisture-loving termites.



## What Is Inside EM Ceramics For Indoor Use & Underfloor Use?

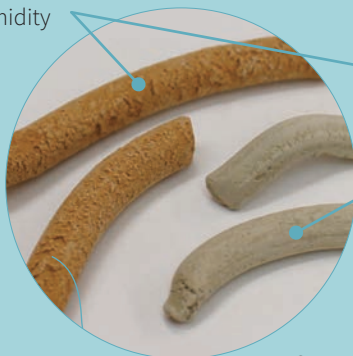
### Indoor Use

Indoor Use is created for the purpose of absorbing chemical substances such as formaldehyde which produce bad smells and environmental deterioration. Materials and methods of baking are selected to increase the suction force and the specific surface area, which impacts the adsorption power, is designed so that total surface area per weight will be large.

Absorb chemical substances  
& control humidity



**EM Ceramics  
for Indoor Use**

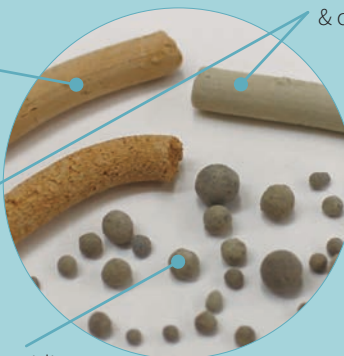


Control humidity

### Underfloor Use

Underfloor Use is created by mixing 3 different types of ceramics; ceramics that can control humidity (absorption and desorption of moisture) and prevent mold and termite infestation, ceramics that excel in adsorption of chemicals that cause environmental deterioration and ceramics that are great in eliminating odor.

Eliminate odor  
& control humidity



**EM Ceramics  
for Underfloor Use**

## Formaldehyde Adsorption Ability Test

In a 60ℓ gas test tank was placed formaldehyde gas (16mm) and 10g of Ceramics powder. 24 hours later, the formaldehyde concentration was reduced by 90%.





# Construction

## Sick Building And Concrete Degradation Measures

The EM Ceramics powder called EM Super Cera Sosei C is utilized in the construction industry to increase the health and well-being of building occupants. It can be mixed with concrete, paint, adhesives and other construction materials.



### COMBAT SICK HOUSE SYNDROME:

Mix with paint and adhesive to reduce pungent or irritating odors.

[Amount of use]

- Add and mix with paint at a ratio of 1:1,000 by weight.
- Add and mix with paste or adhesive for wallpaper at a ratio of 1:1000 by weight.

### CONCRETE DEGRADATION PREVENTION:

Add to concrete to prevent deterioration.

[Amount of use]

- Add and mix in concrete at a ratio of 1:500 by cement weight.

## Inhibitory effect of indoor chemical substance concentrations

This experiment was conducted to study the effect of EM materials for construction on the airborne concentrations of indoor chemical substances. Mr. K's House was built with EM materials (such as Activated EM・1 and Sosei C).

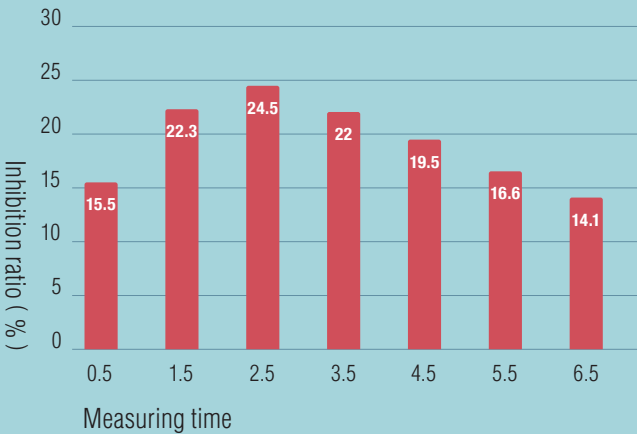
After the completion of Mr. K's House, Okinawa Prefecture Environment Science Center measure the indoor concentrations of Indoor chemical substances. The result shows that concentrations were far below the guideline values.

	Formaldehyde	Acetaldehyde	Toluene	Xylene	Styrene	Ethylbenzene	Paradichlorobenzene
Guideline value	100	48	260	870	220	3800	240
K House	13	23	12	10	<5	<5	<5

( $\mu\text{g}/\text{m}^3$ )

## Odor suppression effect

This test was done to check the effect of Sosei C on odor suppression. The odors of water paint (control) and 5% Sosei C added water paint (Sosei C) were measured using odor monitor every 60 minutes. The results showed that adding Sosei C to water paint reduced the odors emitted from paint at all measuring times.



## Wearable Ceramics

Feel good with EM Ceramics!  
Use them to create a comfortable,  
cozy personal space.

### Use Space Mate to gently protect you

Recommended for people who are surrounded by electronic devices, people who are sensitive to harmful substances in the environment and people who travel frequently, especially by plane.



Put it near TVs or computers.



Place it under your pillow.



Put it in the pocket of car door.



EM Space Mate ceramic plates are heat-resistant to 120 degrees Celsius, so it is safe to place them in hot water. When a warmed Space Mate is applied to part of your body or part of your living space, you will feel warm and relaxed.

### Take EM SpaceMate Mini everywhere you go

The three hole design makes it versatile.



Use it as a key chain



Place it in your bag or purse



Wear it as a necklace.



Place EM E-Cera Ceramics stickers anywhere you like

EM E-Cera Ceramics stickers have EM Ceramics kneaded in. They are thin and light and make a very effective substitute for ceramics, regardless of the application.



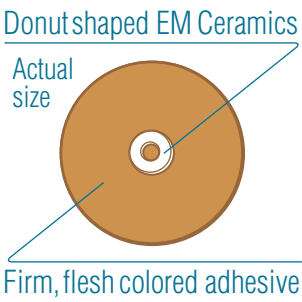
Attach it to your computer



Attach it to you iphone

Paste Genki Acupressure Ceramic Patches onto pressure points on your body

These small ring-shaped ceramics work on all pressure points.



Wear EM Ceramics and revitalize your entire being



Bracelets with EM Ceramics kneaded into acrylic beads.



Black Tourmaline, a natural stone, is added as an ingredient to ceramics. This EM Ceramics bracelet has not only a far infrared ray effect, but also a negative ion effect.

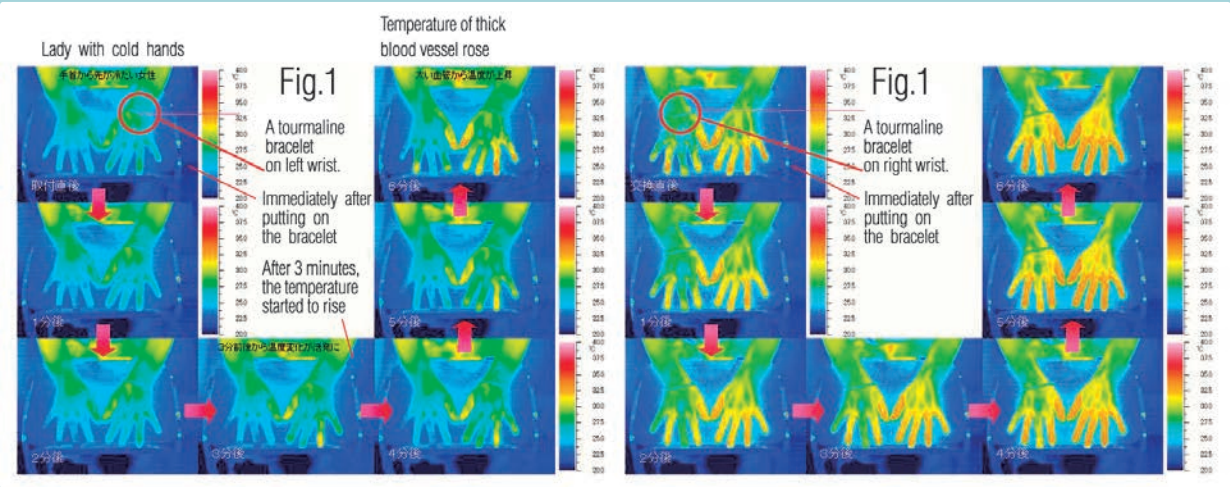


Bracelets and a necklace combining pipe-type ceramics and plastic beads.

Experiment Using Thermography

Body temperature was measured once every minute after a lady with cold hands put on a Black Tourmaline bracelet on her right hand. As time passed, the temperature went up on her right hand only, and her blood circulation got better.

After 6 minutes, the temperature in her thick vessels rose. (Fig. 1) Then, the bracelet was placed on her left hand. The temperature rose in the same way after 5 minutes. (Fig. 2)





# Use For Pets

## Protect Pets Against Disease And Promote Healthy Development.

EM Ceramics can help to protect pets against disease and promote healthy development. Try placing them in your pet's drinking water, in dog potties or cat litter boxes. Different ceramics are required for different applications, so choose the right type accordingly.

### Pets' drinking water, dog potties or cat litter boxes

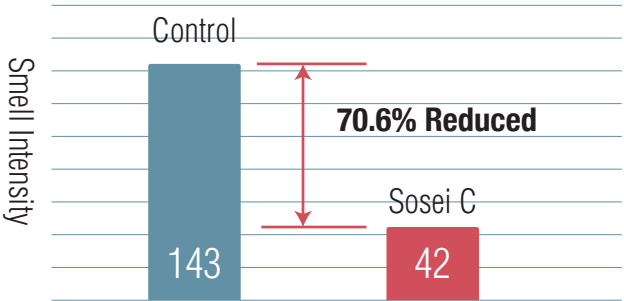
EM Ceramics absorb and remove chlorine. EM Ceramics Powder and EM Pipe S-type absorb ammonia and have a deodorizing effect.

#### Ammonia inhibition test

This graph shows the average value of the smell intensity measure with Odor Meter 20 minutes after. The figure was 143 for the Control and 42 for the Sosei C. The ammonia inhibition ratio was 70.6%.



Ammonia inhibition by Ceramics



Showed significant difference according to Fisher's LSD Test (  $p < 0.01$  )

### Prevention of fish diseases and measures to counteract Algae blooms

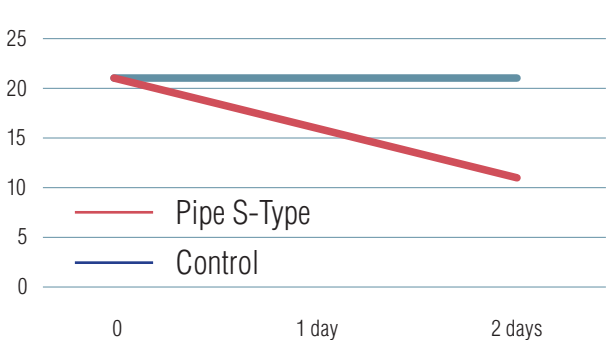
In an aquarium, left-over fish food and fish excrement will putrefy and ammonia is generated. EM Ceramics N-Type will absorb and remove this from the water. Combine this with EM Ceramics which reduce water clusters to maximize dissolved oxygen content.

#### Ammonia removal effect test

Ammonia was added to distilled water so that the ammonia concentration was 21mg/L. Pipe S-type was placed in a beaker and 200ml of the above water was added and left to stand. Samples of the water were taken at the beginning of the test, one day after, and 2 days after. The ammonia concentration was measured using Ammonia Assay Kit. The results showed that Pipe S-type reduced the ammonia concentration to 10mg/L after 2 days.



Ammonia removal by Ceramics



# Compost Activator

## Help The Fermentation Process

Mixing EM Super Cera Terra C with EM Bokashi will help the fermentation process go more smoothly. The presence of EM Ceramics will further reduce unpleasant odors.



Mix Terra C with EM Bokashi at a rate of 1% by weight to promote fermentation, reduce failures and obtain high quality EM food waste compost.



Thoroughly mix EM food waste compost with soil, then spread unmixed soil on top and cover to protect from the rain. Leave it for 10 to 14 days.



Plant seedlings in the mix

## EM Ceramics promote the fermentation of food waste!

### MINI EXPERIMENT

#### Experiment Method

In a putrefaction experiment with cucumbers, ordinary pottery powder was compared with EM Ceramics Powder for home gardens. Commercially available cucumbers were cut 5-10mm in width, wiped of moisture with paper towels and sprinkled with powder. 5 g of powder was used on 50 g of cucumber.

#### A Ordinary pottery powder



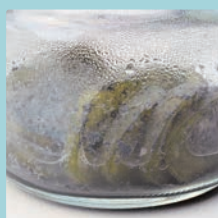
#### B EM Ceramics Powder (Terra C)



A



B



### 12th day

While ordinary pottery powder was quicker when moisture had already begun to decompose, both sets developed intense odors. However, the set with ordinary porcelain powder had a strong putrefied smell, whereas the set with EM Ceramics Powder had a more organic aroma similar to that of rice bran pickles. EM Ceramics Powder has properties that promote fermentation.



## Gardening

Mixing EM Ceramics powder in soil will lead to improved soil health and greater stability of soil microbiota. EM Ceramics powder is particularly suitable for planter cultivation and home gardens.

### Watering

There are thousands of microorganisms around the leaves of plants and these microorganisms help to regulate the growth of the plant. To achieve a healthy balance in the microorganism environment of leaves, spray a 1:1,000 dilution of EM-1 or Activated EM Solution in addition to a 1:10,000 dilution of EM Super Cera Ferment C Powder directly on the leaves.



### Coating plant roots

Dissolve EM Super Cera Ferment C Powder in EM-1 or Activated EM at a ratio of 1:1 and apply it around the roots. This will promote plant growth and reduce stress damage.



### Additional foliar applications

As an extra measure against disease and pests, mix EM Super Cera Ferment C with a 1:1,000 dilution of EM Fermented Plant Extract at 0.1% by volume. This will improve plants' defenses against invaders.



It is also possible to sprinkle EM Super Cera Ferment C directly on the surface of the leaves.



### For sowing and planting

#### Sowing and seed treatment:

Lightly coat the seeds of the crop and plant seeds.

#### Preservation of seeds:

Heavily coat the seeds in ceramic powder.



#### Planting:

Dilute ceramic powder 1:10,000 in a 1:2,000 dilution of EM-1 or activated EM solution and use this mix for irrigation. Coating sliced potatoes with EM Super Cera Ferment C Powder will prevent them from becoming diseased.

### MINI EXPERIMENT EM Ceramics promoted germination of potatoes!

This experiment was conducted to check the effect of EM Ceramics on germination of potatoes. EM Super Cera Ferment C was sprinkled on potatoes. After a month, there were clear differences in the germination speed between the Control and EM Ceramics.

#### DAY 1



#### DAY 28

#### Control



#### EM Ceramics



### To make healthy soil

Using 5 g of EM Super Cera Ferment C powder per cubic meter of soil, mix the powder with a 1:500 dilution of EM-1 or activated solution.

### To improve plant growth

Mix EM Super Cera Ferment C powder with EM-1 or Activated EM-1 for soil spraying (1:500) or foliar application (1:1000). This will improve the population density of Effective Microorganisms and help plants achieve better growth. Use 5g of powder for every square meter of soil.





# What is the effect of EM Ceramics?

## EXPERIMENT Plant roots are healthier with Ceramics for agriculture!

This experiment was conducted to study the effect of EM Ceramics for agriculture on the growth of plant roots.

### Experiment Method

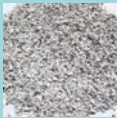
3 groups of solutions were prepared. 30 radish seeds were placed in each solutions and left for 6 days at room temperature.

### Treatment Groups

- A Powder:** Added 0.1% Powdered Ferment C to Water.
- B Granulate:** Added 0.1% Granulated Ferment C Granulate to water
- C Control:** Water only



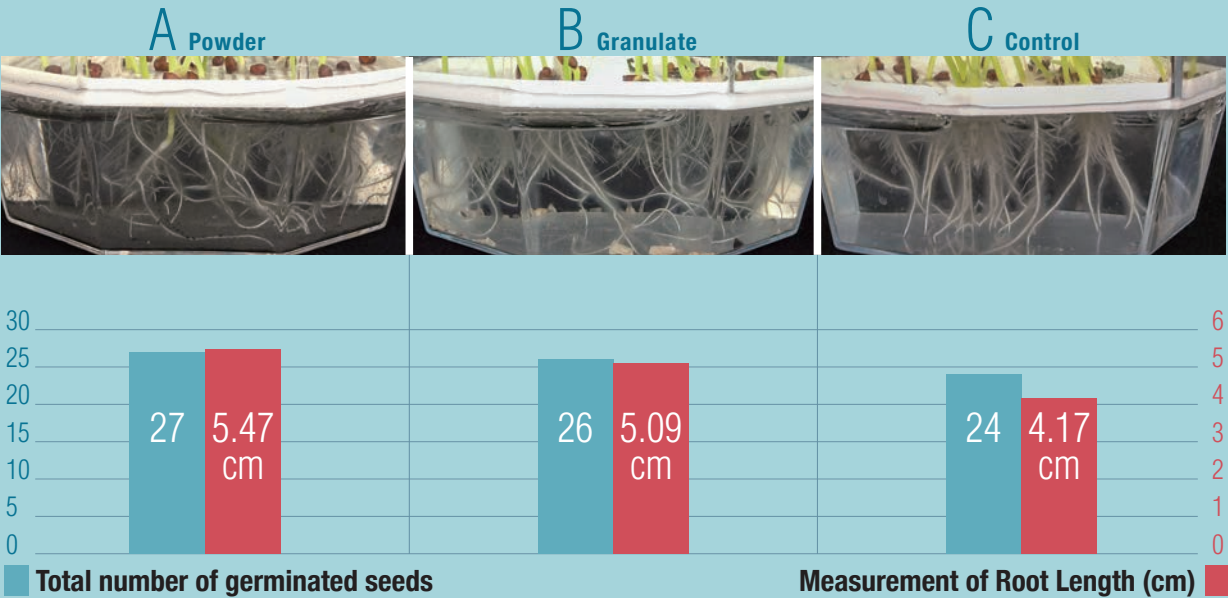
Ferment C (Powder)



Ferment C (Granulate)

### 6 days after

The pictures show the growth of radish sprouts after 6 days. Compared to the Control, sprouts of both Powder and Granulate groups had a higher germination rate and longer roots. Also, Powder and Granulate groups had more root hair, which is important for the plants to absorb water and nutriments.



Compared to the Control, Granulate was 0.92 cm longer and Powder was 1.3 cm longer.







# Introducing EM Ceramics Factories

Takamatsu City, Kagawa Prefecture

**AMRON Corporation,**  
Development Department,  
Environmental Business Division



## An Honest Desire To Develop Ceramics Products

Founded in 1948, AMRON Corporation (Headquarters: Takamatsu City, Kagawa Prefecture) started as a steel trading company, and has expanded its business into the fields of construction, machinery, IT and the environment. As a trading company, AMRON not only operates in intermediate distribution, but also reimagines what kind of new products can be offered to the market. They have a broad business base in addition to distribution and can prepare factory facilities as well as deal with the processing of steel related products and building materials.

The company's Environmental Division, which focuses on technical proposals dealing with soil and water contamination as part of the environmental field, supports the promotion of water quality purification and pesticide-free cultivation through manufacturing EM Ceramics products.

In this interview with Mr. Inoue, the executive managing director of AMRON Corporation, we asked about the company's commitment to manufacturing EM Ceramics.

### HOW DID AMRON START OUT IN THE CERAMICS BUSINESS?

About 25 years ago, when our chairman, Mr. Kazuo Iwasaki, was thinking about his own way of living and was

considering doing volunteer work, he met Prof. Teruo Higa. At that time, active agricultural instruction on the use of EM was carried out in Takamatsu City, and he attended a lecture on EM, which turned out to be the starting point. One day after this lecture he heard a salesman talking about how he used EM at home and this further sparked Mr. Iwasaki's interest in EM.

Subsequently, he became very close to people involved in EM outreach and was asked by them to make ceramics using EM Technology. However, since its inception, AMRON's main business has been to distribute steel products. The company had no actual experience manufacturing ceramics and had never sold them as products. Mr. Iwasaki decided, "It's unrelated to our

main business, and we have no experience or record in this field, but if it helps spread the use of EM, I will do it." He contemplated his own intentions in taking this step, and finally decided to make the leap and begin manufacturing EM Ceramics.

Inviting experts from Seto City, Aichi Prefecture, famous as a pottery manufacturing hub, AMRON started by assembling manufacturing machines in a corner of the factory. They were starting from scratch, with no knowledge about the qualities of ceramics or their functionality.



## DESPITE REPEATED FAILURES, THEY CONTINUED TO FOCUS ON PRODUCING HIGHLY FUNCTIONAL CERAMICS PRODUCTS

As their development team started manufacturing EM Ceramics, they found after much investigation that the critical ingredients for creating a commercial product were soil and water. Mr. Iwasaki was firmly convinced that, in his words, “In order to make a good product, we must obtain and use high quality materials.”

Based on this principle, they ordered soil from all over the country, and narrowed it down to two kinds of soil from three locations. With every purchase they checked whether there was heavy metal contamination and made sure to use water pumped directly from a vein located 150 m underground on the land where the factory was constructed, all in order to make sure they manufacture a safe product.

After they located suitable raw materials, they began experiments to produce highly functional products. Using a small burning furnace dedicated to experiments, in order to find a recipe for making highly functional ceramics products, they fired the ceramics hundreds of times, learning through trial and error.

Looking back on that time, Mr. Inoue of AMRON said with a laugh, “As we made these, we broke up the square

ceramics with a hammer, crushing them into powder, over and over, until our own bodies were covered all over with it.” After much trial and error, stacked firing temperatures and time data were input into the automatic firing furnace system. The program was designed so precisely that the entire sequence, from firing to the natural cooling process was adjusted for each separate product and reflected seasonal changes in temperature. This allowed them to computerize the mass production of EM Ceramics.

## DIFFERENT TYPES OF CERAMICS PRODUCTS

In order to enhance functionality of ceramics products, raw materials are carefully selected. The mixing ratio and type of soil used, as well as firing temperature, differ, depending on the product. The nature of the ceramics being produced changes greatly depending on the firing temperature, since the number of fine holes that form on the surface differs. When fired at a temperature as low as 700°C, ceramics with high absorbing power can be produced.

Ceramics with high adsorptivity are those in which microorganisms settle into microscopic pores invisible without using an electron microscope. This promotes the decomposition of harmful substances present in water, and plays a role in absorbing and removing chemical substances such as formaldehyde.



**1.** They pump up clean groundwater with few impurities, and draw it into the factory. This water is used in manufacturing EM Ceramics.

**2.** Stick-shaped clay is cut into a columnar shape.

**3. 4.** A computerized kiln produces 200 kg per day. Since the process of firing in the kiln is also programmed to respond according to the seasons, it adjusts automatically.



# Introducing EM Ceramics Factories

Seto City, Aichi Prefecture

Maruishi Ceramic Materials Co., Ltd.



## Making Products Closer To Nature A Heart For Ceramics And Microorganisms

### CERAMICS MAKING EVOLVED FROM TRADITIONAL POTTERY TECHNOLOGY

Seto City in Aichi Prefecture is well known for its ceramic products and its wonderful pottery is loved throughout Japan. In this famous region, where good quality Kibushi clay is found, Maruishi Ceramic Materials Co., Ltd. was founded in 1874 to produce ceramic pottery. Since the World War Two they have been producing many high quality products, including raw soil for pottery and natural raw materials for the production of ceramics.

Product development based on the application of EM started in 1995. At that time, public interest in environmental issues was increasing and food waste

recycling was actively encouraged. As there was increased recycling of food waste using EM and composting of fermented food waste with EM Bokashi, people started to use ceramic products to treat food waste. The fermentation of food waste is influenced by the quality of EM Bokashi. Against this background, EM Super Cera Terra C was first brought out through a merging of EM technology and the excellent processing technology that had previously been developed.

### HIGH QUALITY RAW SOIL MATERIALS IN TRADITIONAL PORCELAIN TECHNOLOGY

There are many types of raw soil used for pottery and each has a very important role. Multiple raw soil materials are

mixed and kneaded together to make the optimum clay for chinaware.

Likewise, EM Ceramics are made by changing the proportions of different soils according to the application and by development of the most suitable raw soil material.

Kibushi clay and Gairome clay, which are said to be the finest quality in the world, are highly fire resistant and are easy to process into whatever shape one wants. Maruishi Ceramic Materials Co., Ltd. owns a mine in Seto City where these high quality clays can be extracted. Also, combining a variety of raw soils such as silica sand or sandy loam produces clay for high quality pottery.

Gairome (literally “frogs’ eyes”) clay is said to have been given its name



because the quartz particles mixed in look like a frog's eyes when it is wet with water. It is one of the most important porcelain raw materials because it turns white when fired.

Kibushi (literally knotty wood) clay is so named because it contains carbonized pine wood chips. It is a collection of fine particles and is characterized by a brown or gray color because it contains organic matter. Kibushi clay is an important raw soil that is essential for EM Ceramics because it is highly compatible with EM.

An abundance of silica sand is contained in the stratum called the Seto Layer Group in the hilly area. It is highly pure and is extremely resistant to both heat and fire. For that reason, it is a raw material that reduces shrinkage due to drying and firing the ceramic base. By mixing it in, the strength of the fired ceramic base increases.

Decomposed granite soil is sand produced by the weathering of granite, and is used for wall material and tombstones, etc. Much is produced in western Japan, where there is less rain and a milder climate.

The EM Ceramics made by Maruishi Ceramic Materials Co., Ltd. are born of the combination of EM and traditional ceramics techniques using high quality soil.

CRAFTSMANSHIP IN HANDLING SOIL AS A LIVING THING

When Maruishi Ceramic Materials Co., Ltd. manufactures EM Ceramics, it devises various methods for clay forming, firing temperature, etc., depending on the product.

Forming before firing can be divided into various manufacturing methods, such as "casting", "extruding", "hand twisting", "hand potter's wheel", and "irori (slab-forming)."

The firing temperature differs depending on the product and it is also affected by the climate at that time, so it is necessary for the craftsmen to make fine adjustments in temperature.

In this way, skills refined over many years are condensed into the shape and special use of products.



Kibushi clay



Gairome clay



Silica sand



Decomposed granite Soil



**LEFT:** Mr. Hideyuki Mizuno, Manufacturing Manager of the Ceramics Factory. Mixed raw material clay (in a muddy state) is pushed into a pleated cloth and extra moisture can escape.

**BOTTOM LEFT:** Clay aged in EM. The color is different from ordinary clay, in the right corner.

**BOTTOM CENTER:** Mixing pulverizer for raw soil. A large amount, 5 tons of soil, is mixed with this equipment.

**RIGHT:** Ceramics grinding pulverizer. The picture shows only a part of the whole.





## CERAMICS BORN OF TRADITIONAL TECHNOLOGY IS NOW IN THE OVERSEAS MARKET

Various EM Ceramics products that have been produced so far continue to demonstrate their effectiveness in fields such as soil improvement in agricultural land, improvement of the aquatic environment in seas, ponds and rivers, and in construction, such as in housing.

These products are not sold only in Japan, but are valued now in many foreign countries and regions.

EM technology has dramatically advanced abroad, creating various products tailored to the needs of the country where they are produced. Among them, EM Ceramics is very popular as a unique EM product from Japan. A variety of products are widely distributed, from large size products such as EM Super Cera Ferment C Powder for agriculture and EM Super Cera Sosei C Powder for construction, to more compact size products for the household, such as E Cera Stickers and the E-Kagen series.



## FUTURE EXPANSION OF EM CERAMICS

Clay, which is the raw material of EM Ceramics, can produce various archetypes, but the soil which is the raw material for these is produced by nature over thousands, of years, and there is a limit to it. Mr. Yuichi Kato said, “I have

been considering how microorganisms possess the key that can produce this superior soil and how it might be possible to artificially create it by borrowing the power of microorganisms.”

Today, products made with Seto's ceramic technology, utilizing resources such as local

soil and water, have led to a revitalization of the local community.

We feel very hopeful having seen how a combination of soil created by nature, the wisdom of people and traditional techniques can create products that enhance our environment and our daily lives.



## Introducing EM Ceramics Factories

Tsubame City, Niigata Prefecture

ENTEC Co. Ltd.



### You Can Put EM Ceramics Anywhere And Carry Them Wherever You Go!

EM SPACE MATE can be put anywhere in your daily life, and can be carried with you wherever you go.

SPACE MATE is manufactured by ENTEC Co. Ltd. of Tsubame City, Niigata Prefecture. ENTEC is a producer of specialized plastic resin products founded in 1951, and all their products are manufactured at their own factory.

According to Mr. Yusaku Endo, President and CEO, and Mr. Koki Sekifuji, Managing Director, they have a lot of experience making products by mixing liquid into resin, etc., but the entire process of producing SPACE MATE, from mixing resin to molding, was a challenge, and required a lot of trial and error. Even the compression temperature etc., is affected by the climate, so fine adjustments were necessary. However, they both say that understanding the characteristics made it possible to create strong, high quality SPACE MATE plates.

SPACE MATE is a product formed via high compression molding by mixing EM Ceramics manufactured by Maruishi Ceramic Materials Co. Ltd. with melamine resin. It can be used with confidence in daily life because it is not easily damaged. EM-X GOLD is also applied during the manufacturing process.

SPACE MATE is an EM Ceramics plate product that combines the knowledge and techniques of professionals in EM Ceramics and those in plastic resin.



An extremely hot product immediately after compression molding at high temperature.



SETO RENAISSANCE, Mr. Yamamoto, Chairman(right) and Mr. Fuki Kanii, Board of directors (left)



## A Full Circle, From Kitchen To Kitchen

### Making food waste compost with EM ceramics!

SETO RENAISSANCE, a non-profit organization that is active in Seto City, Aichi Prefecture, aims through the centrality of food in our lives, to form a sustainable society that recycles resources. Their activities are based on the idea of “A full circle, from kitchen to kitchen, making pesticide-free vegetables with recycled food waste compost.”

They have been promoting a program to recycle food waste, which accounts for half of the total amount of garbage in Seto City. Rather than incinerating it, they turn this recycled waste into a compost fertilizer resource to help grow vegetables people can eat, returning any food waste back to the fields.

Applying food waste compost that has been fermented with EM to fields, incorporates EM into this circuit, not only reducing the amount of garbage discharged but also making it possible to cultivate vegetables without pesticides, creating healthy and tasty vegetables.

Actually, this was the first place that used EM ceramics for food waste composting. Due to differences in the quality of EM Bokashi, some people stopped food waste recycling when the food waste did not properly ferment. However, by utilizing EM ceramics, the quality of which is always stable, food waste steadily fermented and good quality compost was produced.

In 2015 there were over 150 members of the food waste recycling program,

and the amount of food waste reduced over a year's time reached about 36 tons. The members are confident these activities will spread even more in this area.

Mr. Kanii, who is active in the SETO RENAISSANCE, non-profit organization, found out about EM and started recycling food waste when his child got sick. While studying about health, he learned the importance of “food and agriculture” from oriental medicine. However, since there were no vegetables for sale that he considered genuine, he decided to grow them himself. At that time he found out about EM through reading one of Dr. Teruo Higa's books, *An Earth Saving Revolution*. He started to practice EM fermented food waste composting while growing pesticide-free vegetables and he felt very strongly about its possibilities.

Whenever Mr. Kanii's grandchildren come to his home, they head straight to his field. Children always love to spend time in the most comfortable places, and he says that he, himself, also feels happiest whenever he can touch the soil in his field.

These “full circle, from kitchen to kitchen” activities in Seto City have become a true “virtuous cycle of happiness.”

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## EM Ceramics Application Examples

SETO RENAISSANCE  
non-profit organization



1. EM Shop Rakudau is a friendly and cozy café where people from Seto City gather. EM products are also sold there, and they hold exhibitions of paintings and photographs, as well as concerts by a variety of performers.

2. “A full circle, from kitchen to kitchen.” Grow pesticide-free vegetables with kitchen waste compost. 52% of garbage collected from households is food waste.

- Making food waste compost using EM buckets!
- Making good soil utilizing food waste compost.
- Growing vegetables with good soil.



3. Food waste fermentation with EM Ceramics. The ceramics help to promote stable fermentation of food waste.



**Mr. Matsubara, member of NPO SETO RENAISSANCE**

When you make compost using food waste from your kitchen with EM, and grow vegetables applying that compost, the difference in growth is obvious! The photo shows a comparison of



## Japan

Mr. & Ms. OKABE  
newly-built house

Mr. and Mrs. Okabe lives in Shizuoka, Japan



# Using Ceramics Mixed With Adhesives In A Newly Built House

## Sense of well being brought on by EM Ceramics

How are EM Ceramics used in construction? At Mr. Okabe's house, they were used in bonding wallpaper during the interior construction of the rooms.

The area where wallpaper was to be used was surprisingly extensive, so it would have quite an effect on the indoor environment. Since his child is still young, Mr. Okabe picked adhesive that did not contain harmful chemicals, such as formaldehyde and toluene. However, he was still concerned about chemicals other than those listed. Diatomaceous earth was an option, but since it was rather expensive he opted for EM

Ceramics, which fit within his budget. Adding EM Ceramics to adhesion glue is not labor-intensive work and the cost is low, so he felt it was worth trying. An unseen sense of well being brought on by EM Ceramics emitted from the ceilings and walls in all the rooms.

We asked Mr. Okabe, who moved in shortly after the completion of his new house, how it felt to live there one month later. He said that there was no chemical odor right after moving in and it felt very comfortable. EM Ceramics help provide a safe environment for families to live in.

\*EM·X GOLD is intended for human consumption. Mr. Okabe understood the merits of EM·X GOLD and utilized it for construction at his own discretion.

strawberries. There is a clear difference anyone can see between strawberries grown in the field without EM fermented food waste composting (above) and strawberries grown in the field with EM fermented food waste composting (below). This difference is especially clear with leafy vegetables such as Napa cabbage, which have beautiful, healthy looking leaves and, best of all, taste delicious. The Napa cabbage that he could harvest were quite heavy and he said that he will never forget the joy of holding truly healthy vegetables for the first time.

### Traditional farming



### EM Ceramics food waste compost



1. This time, they used EM Ceramics powder type for construction, "EM Super Cera Sosei C" (right) and EM·X GOLD. Add these to the wallpaper glue paste.



2. Dilute 18 kg of adhesive paste with water to produce about 50 kg. Add about 50 g (0.1%) of EM Super Cera Sosei C and 250 ml (0.5%) of EM·X GOLD.



3. After thoroughly mixing in the EM ceramics, put the mixture into the machine that applies glue on the back of the wallpaper (cloth).



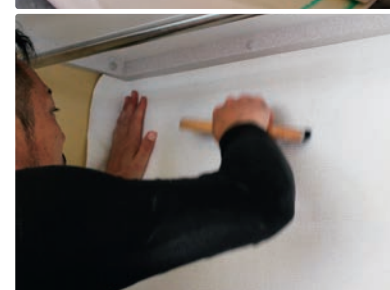
4. When the roller of the machine begins to rotate, the adhesive glue will spread uniformly.



5. EM Super Cera Sosei C particles are quite fine, so even if they are mixed in to adhesive paste the texture will not be bumpy or uneven.



6. Carefully and quickly paste the wallpaper on the wall



## EM Ceramics Application Examples

The Saikaen Orchards

# A Way Of Growing That Makes For Healthy Peaches And Healthy People, And Allows For Continuous High Quality

### EM Ceramics for growing healthy peaches

Fuefuki City, Yamanashi Prefecture, located along National Route 411 (Koshu Momotaro Route) is famous as a major production area for peaches and grapes. Along this road lies the Seikaen Orchards, where exceptionally delicious peaches and grapes are grown. Mr. Rikuo Sameya of Seikaen Orchards first encountered EM some twenty-four years ago, after repeated trial and error attempts to cultivate peaches and grapes without using pesticides.

He began using EM Ceramics to make hanging solid objects as countermeasures against bird damage. Using this method, damage to peaches was reduced, and furthermore the damage is almost eliminated by hanging plastic bottles containing EM Super Cera Ferment C (powder) in an activated EM solution. In addition, he coated the peach trees and grape vines with a mixture of activated EM solution and EM Super Cera Ferment C (powder) to enhance recovery and promote growth. He mixed this with woodworking bond to prevent the

mixture from washing away in the rain and, since last year, he has also been using activated EM solution made with seawater.\*

Through these efforts, the trees have become healthy and do not suffer from the stress of climate change and, though the farm has reduced the use of pesticides, the fruit produced is very large, attractive, and quite tasty. People have learned of the delicious fruit of Seikaen Orchards through word of mouth, and there are many regular customers, with a pre-order rush every year. The power of the Seikaen Orchards brand lies in its high quality and delicious flavor, which keeps customers coming back.

Mr. Sameya has come to the realization that, in his words, "EM can do it all!" EM ceramics are fantastic, he says, but it is also important to use EM Bokashi and activated EM solution, adjusting the application according to the area and the time it's being used, and to be innovative in how it is applied.

The orchard enclosed in EM is a very

cozy space where you feel like taking a deep breath because of the crisp, fresh air.

It is not easy to grow without using any pesticides. Mr. Sameya continues in his efforts to do so, and looks forward to future challenges.



A solution of Activated EM and EM Super Cera Ferment C (powder) mixed with woodworking bond is applied to the trunk of the peach tree to a height of approximately 60 cm.



In the orchard, to counter wild bird damage, at an interval of 2m, he hangs PIPE 35 (photo in the center) and plastic bottles containing activated EM solution and EM Super Cera Ferment C (powder).



## Japan

### North Shinano EM Study Group

Mr. Yoshiro Kaneko is brimming with confidence in the use of EM Ceramics in cultivation. Vegetables grown with EM Ceramics are very popular at local schools and at “Michi no Eki” (designated rest areas intended to promote local tourism and trade).



## EM Ceramics Affect “Bacteria”, “Soil” And “People”

### Growing vegetables with EM Ceramics

Nakano City, Nagano Prefecture is located in the northern part of the prefecture, and in addition to fruit such as grapes and apples, as well as vegetables such as asparagus, this is one of Japan’s biggest production centers of mushroom varieties such as Enoki and Shimeji.

Mr. Kaneko and his wife, are working together to grow various kinds of vegetables here without using pesticides.

Mr. Kaneko is also a representative of the “North Shinano EM Study Group” which was launched in this area and is busy promoting the cultivation of delicious and safe foods.

He says that it is difficult to sense clear effects using EM Ceramics alone, but that the power of EM can be demonstrated better by combining EM Ceramics with activated EM solution. The application method is to mix EM Ceramics with activated EM solution at a ratio of 1:50 and spray it on crops as well as over the soil once a week. The soil, which was originally hard, has turned softer, and the

vegetables grown there have a high sugar content and a reputation for being delicious. Of course, all the vegetables grow vigorously without using pesticides, and he says that he finds it a true pleasure to cultivate them. He has now replaced ordinary activated EM solution with activated EM solution made with seawater,\* and has seen further beneficial effects, such as reduced damage by slugs.

Eating such good and healthy vegetables everyday has made Mr. and Mrs. Kaneko happy and healthy, completely free from illness.

Mr. Kaneko says that he thoroughly enjoys growing lots of healthy vegetables. He wants more people to know about the quality of vegetables grown with EM so that they too can live healthy, happy lives. He works the soil and vegetables every day, with these hopes for the future.



Activated EM solution with seawater mixed with EM Super Ceramics Ferment C (power). “I spray this once a week,” Mr. Kaneko adds.



“I feel like every vegetable is my child, and I do my very best to take care of them.”

\*Activated EM solution with seawater is EM cultured in artificially made seawater.





## Oil Is Also One Of The Ingredients

EM Ceramics help make tempura crisp, delicious and longer lasting.

“I am a total EM fan!” says Mr. Tsunetomi Teshima, smiling, about his use of EM. Eleven years ago he started his restaurant, TENPURA Teshima, in Aoba-ku, Yokohama City. He is very particular about cooking delicious deep fried tempura, and uses EM Ceramics in the pan in which he deep fries the crispy dish. When he began using EM, his customers often complimented him, saying, “You’ve become an even better chef!”

### A PHONE CALL FROM AN OIL SELLER AND THE EFFECTS OF EM

“About a year after opening my shop,” he says, “Dr. Ichiro Sugimoto, who runs a nearby neurosurgical clinic in Akane dai, (Aoba-ku, Yokohama City), came to my restaurant with his family. He gave me EM Ceramics, and suggested I put it in the hot oil when cooking tempura.”

“At first I just went along with his suggestion, without really thinking about it.

The oil I use for tempura is my own original blend of sesame oil and canola oil, etc. blended to bring out the final

deep fried texture I’m aiming for. One day, I received a phone call from the oil shop. The salesman said, ‘I know we’re in a recession, so I guess it’s only to be expected....’ I was wondering what he meant since my business was doing fine, and the number of customers remained steady. Suddenly I noticed that I had not bought oil recently! I’d been using about four cans of oil in a month, but recently had used only about two cans of oil. I was sure that was because I’d begun using EM Ceramics in the oil I use for deep frying.”



When using EM Ceramics (PIPE 35), the bubbles of hot oil will be smaller and less conspicuous.

### TIPS FROM A PROFESSIONAL TEMPURA CHEF FOR MAKING DELICIOUS TEMPURA!

**1. Sift flour half a day in advance.**  
Choose cake flour, using a type with low protein content. Sift the flour and store it in the refrigerator; excess moisture in the flour will disappear and this process will help make the tempura crispier.

**2. Keep flour, water, and eggs cool.**  
When ingredients are warm, the gluten comes out more easily, and it gets sticky.

**3. Use prepared batter immediately.**  
The lifespan of tempura batter, a combination of flour, water and eggs, is 15 to 20 minutes. Instead of preparing it in advance, use it as soon as you make it.

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## EM Ceramics Application Examples

### Japan

#### TENPURA Teshima

### OIL IS ALSO ONE OF THE INGREDIENTS.

“People think that making tempura is very simple, just deep frying, but it is not that simple. Oil itself is one of the ingredients, and extracting some of the moisture from vegetables and deep-frying them concentrates their flavor. Tempura deep-frying complements the taste of ingredients and a lot depends on using high-quality inputs, which include deep-frying batter and oil.”

“By putting EM Ceramics in the oil, which is an important ingredient, the oil lasts longer.(\*1) If you add new oil, the oil will regenerate. This might be an extreme way of putting it, but I think that all you need to do is merely add the same amount of oil as is reduced through cooking, and continue using it for a long, long time.(\*2) Before I began using EM Ceramics during the busy lunch hour, I would have to change all the oil every two hours because it went bad. Now this is no longer necessary, and we don’t need to make our customers wait.”

“I also put EM Ceramics in the water I use for the tempura batter. If we do this, the batter will last longer. Tempura batter usually only lasts about 15 to 20 minutes. If you leave it any longer, the gluten will come out, and the tempura will not be fresh and crispy. However, if you put EM Ceramics in the water and oil, the tempura will be very crisp. You can clearly see this in agedama, bits of fried tempura batter. The crisp texture will last longer.”

“Oil with EM Ceramics also drains well. Before I began using EM Ceramics, the tempura paper (the paper put under deep fried tempura to drain the excess oil), had to be changed in the middle of

meals with several courses. Now, there is no need to change it. I’m not being stingy. (Laughs). When I pick the tempura from the hot oil, the oil drains off really well.”

### BEING SUPPORTED BY MANY GOOD RELATIONSHIPS

“I was not originally planning to open a tempura restaurant. I dropped out of high school and as I was considering what I should do, I was introduced to a culinary institute and studied there. I then worked in a long-established tempura restaurant in Ginza called “Tenichi.” Up till then the only tempura I knew was what I’d had at home, and I was not that fond of it. But the tempura served as a staff meal at the restaurant was very tasty, and I was impressed, ‘This is delicious! What is this?’ I wondered.”

“While I was an apprentice, we went through very strict training. However, I figured I was just not a very capable person, so I didn’t feel depressed even when I was scolded. Unlike baseball batting practice, making tempura is not something that you can practice so much, even after you go home. So, at the end of a day’s work I’d change my clothes and put the day behind me, saying ‘O.K. That’s it for today. I’ll try my best again tomorrow.’”

“I’m not a serious, intelligent type of person at all, but rather a bit easygoing and easily bored. However, I’ve been fortunate to have good relationships with people, which has allowed me to keep going. My encounter with EM was because I met Dr. Sugimoto. I am so grateful for these encounters and I would like to continue serving delicious tempura.”

We use E-Kagen Ceramics for the water for making tempura batter and for the water that customers drink.



Using EM in the oil and water makes agedama (bits of fried tempura batter) stay crisp longer and bags of them are also popular as gifts to take home.



The salt used for tempura is an original blend of EM Sea Salt GOLD and pink salt.



If you put EM Ceramics in an aquarium, the fish will live longer.



We clean the inside of the restaurant every day with EM. Mr. Teshima notes that, “I use EM for cleaning the bath tub and toilet at home every day too.”



\*1. This is just my personal opinion. \*2. TENPURA Teshima uses sesame oil for flavor but the flavor of sesame oil itself will disappear eventually, so they discard this oil and replace it.





# Stone Treatment Healing

“I want to be healed by EM Ceramics!” A report from an editorial staff member.

Spa Corazon Okinawa at the EM Wellness Resort Costa Vista Okinawa, Hotel & Spa offers wellness relaxation treatment with EM Ceramics that can only be experienced there. Enjoy a luxurious time relaxing in your own private room and try healing your day-to-day fatigue with warm EM Ceramics!

## Choose Aroma Oils

“First of all, I chose my favorite scents from about 20 kinds of aroma oils. The therapists always give helpful advice, such as about creating a blend of two or three different kinds of aroma oils according to our preferences. This time, I chose lavender and lemon grass!”



“If you are bothered by stiff shoulders, lemon grass will help you. If you feel tired, I recommend choosing lavender. Please choose aromas that you can relax.”



## Treatment Room

“The treatment room is a completely private room and requires a reservation. The rooms include a bathtub and shower, so you can feel exactly like a pampered princess. There are private rooms for two people, too, so you can come with a friend if you wish. They have many male clients as well.”





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# EM Ceramics Application Examples

## Japan

Spa Corazon Okinawa at the EM Wellness Resort Costa Vista Okinawa



Donut shaped Ceramics, EM Ring Stones are warmed in hot water. 20 EM Ring stones are used at one time. Warm Ring stones massage you, and gently loosening muscles throughout your whole body and then you are cooled down with chilled stones.

The selected aroma oil, mixed with grape seed oil, is prepared as a massage oil. (left) You can enjoy the scent of aroma oil from under the bed even when you are lying on your face (right). Your whole body is enveloped in your favorite fragrance, and your mind and body are completely at ease and relaxed.



**Start Treatment**  
“When warm EM Ceramics touch the skin directly, they slowly warm up the body. Blood flow improves throughout your body, and you feel warm and toasty and start to perspire.”

“After the back come the legs. During treatment, warmed EM Ceramics are placed along the spine. You feel the warmth slowly and gently spread out from the backbone. Now you’re ready to say good night!”



“According to the therapist, even though the ceramics are hard, people feel as if they are getting massaged with hands, so clients often tell her, “Your hands feel so warm!”



### A Sigh Of Relief

“After treatment, I totally indulged in Herb tea, EM brown sugar and dried fruits. I breathed out a sigh of relief, feeling like my whole body had been reborn.”

Since blood circulation of the whole body improves,” the therapist added, “we highly recommend this for people who are sensitive to cold. Now there are many people who are sensitive to cold even in the summer, so we recommend experiencing this treatment with EM Ceramics.



## Heat and EM

### The first EM ceramic storage stove in Switzerland

EM Ceramic Powder has been used as a construction material in various ways, such as adding to paint, glue and concrete. The first EM ceramic storage stove was made in Switzerland.

Here, we would like to share an article about the EM ceramic storage stove by Mr. Willy Kuttel.





# EM Ceramics Application Examples

## Switzerland

the EM ceramic storage stove by Mr. Willy Kuttel

**Do you know the sense of well-being**

that occurs when warmth penetrates the buttocks and back evenly and gently into the body? A slight tingling sensation in the back muscles becomes noticeable when the infrared rays move into the deeper layers of the body. Such an experience can be conveyed to you by a stationary storage stove.

It produces long-lasting, mild radiant heat and a healthy indoor climate. It was an adventure to order, design and build the first storage oven equipped with EM ceramic powder and EM ceramic tiles.

The tiled stove is a cultural asset, a special kind of heat source. It is a heating system individually adapted to our conditions of use and our taste. This one was carefully planned and built by the local master craftsman with much patience and skill. It was an experience to see the stove get bigger and bigger (as it was built) day by day. The tiled stove was created by a master's hand. It has a large storage mass and provides the famous "tiled stove heat" for hours.



**What is new and unique**

about this stove is the use of clay and EM ceramic powders in the custom-made prefabricated wall and seat tiles which are from a company called Schädler Keramik AG in Liechtenstein. These were carefully installed on site and turned our stove at the center of the house into a piece of jewelry! With the proper design of the combustion chamber and the exhaust flues, we now have a stove that is highly efficient and has excellent environmental performance. Loading the stove with the fragrant beechwood is a ritual we do not want to miss. Once lit, the automatic combustion air control takes over the heating process and we can carefreely enjoy the slowly unfolding warmth.

**After two years of experience**, we are not only aware of the tiled stove's warmth, but also the effect of EM Ceramic Powder used in the tiled stove. We find that a gentle increase in temperature and an even energy input are achieved through the combination of heat and EM. The tiled stove heat, in synergy with the incorporated EM Ceramic Powder, brings about unique effects.



### The warmth, or rather infrared rays,

feel silky, balanced and gentle. The infrared rays do not only penetrate deeply into our skin, but also dissolve muscle tension through pleasant radiant heat. Above all, when relaxing near the stove, we feel a level of deep calm and serenity which we have not been able to experience with any other heat source. The master potter incorporated EM ceramic powder (Super Cera) in our storage stove. The Ceramics produce an effect through resonant vibrations and long-wave infrared radiation. They activate and promote existing micro life. Our experience confirms that in combination with EM Ceramics, the radiant heat emitted by the stove creates an energy that is consistent, promotes a harmonious atmosphere and makes us feel comfortable.



### The number of skin diseases has increased dramatically

in recent years. Skin problems such as pustules, abscess, eczema, atopic dermatitis and psoriasis are quickly becoming ubiquitous. The higher room temperature required by conventional heating systems, the temperature gradient and the high air circulation are not exactly beneficial to the skin. When sitting by the stove or

when standing near the stove, we can feel our skin calming down and our irritations being relieved. We are convinced that with this stove we have done something profound not only for our skin but also for our health.

In my mind, I have always associated the word “tiled stove” with the words “green, powerful and expensive”! For two years, the word “tiled stove” now stands

for “amazing heat and well-being”. With the EM storage tiled stove, we brought the element of “fire” back to the center of our house. The heat from the wood is maintained for days through the storage power of the stove and the good insulation of the house, which we enjoy physically and mentally.

Author | Willy Kuettel, Engelberg (CH)

From EM Journal 48  
<https://www.emev.de>

Client |

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Contact |

#### EM ceramic wall and seat tiles:

Schadler Keramik Churerstrasse 60, 9485 Nendeln, Liechtenstein  
[www.schadler-keramik.com](http://www.schadler-keramik.com)

#### Furnace construction, stove maker:

Dillier Feuer + Platten AG, 6060 Sarnen  
[www.dilliersarnen.ch](http://www.dilliersarnen.ch)

Note: This is a personal opinion and experience



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## EM Ceramics Application Examples

### Germany

EM ceramics collars for pet

## Amazing Experience With EM Ceramics.

In several issues of the “EM Journal” in Germany, dog owners reported their experiences using EM in their pets’ food or externally to help with skin problems, etc. Results with EM as well as EM Ceramic Powder were encouraging. This time, we would like to share a report from one of the EMeV members, veterinary practitioner Ulrike Reimann, who had amazing results with her self-made EM Ceramic collars.

**My job as a veterinary practitioner** makes me always wonder; if something is beneficial for humans, could it be beneficial for animals too? I have been wearing EM jewelry for a long time and noticed some positive effects, so I thought why not use it for animals? I tried to learn more about the uses and effects of EM Ceramic Pipes and realized that this kind of research is not so easy.

So I made some collars with EM Ceramic Pipes and gave them to friends. They agreed to try them with their pets. The collars had a great effect on tick protection and it quickly turned out that they also had a wonderfully harmonizing effect on the animals. Fearful dogs

became more courageous and aggressive dogs became calmer and more relaxed.

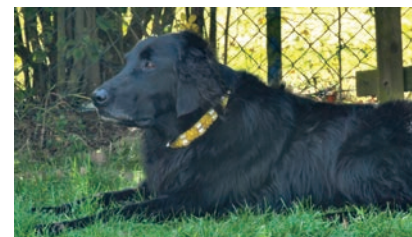
The best example was a 15 year old female dog. She was suffering from urinary incontinence and literally leaked overnight and laid in her own urine. Also, she had a severe back pain and was taking medications. After just one day and one night, a little miracle had happened! Her incontinence disappeared and her back pain decreased. Actually, she was a search dog, but she had not been able to participate in training sessions for a long time. However, after three days wearing the collar, she could begin training again! Both the owner and I were surprised, as you can imagine. Best of all, her condition has continued to improve.

**For some dogs, old diseases flared up again.** That does not sound so good at first, but on the other hand, this has advantages. The old aches and pains can now be healed completely.

When the dog’s health improves, the owner does not want to be left behind. So I also made some bracelets for people and the feedback was great, too. Basically, they had the same effects as the dog collars. Again, it was observed that old diseases come to light again. At first, I could not quite understand why some people experience positive effects and not others. However, the more feedback

I received, the clearer it became that the pains were related to old illnesses that had never completely healed.

**The most common feedback** I received was that both humans and animals gained more energy. My own female dog is seven years old and has always been a bundle of energy, but since she started wearing collar, she could even run like a young dog. People always remark “She is still young, isn’t she?”



Author

Ulrike Reimann,  
veterinary practitioner, Bornheim

From EM Journal 42  
<https://www.emev.de>

Note: This is a personal opinion and experience



## EM Pyramid: Power of Harmony.

It is becoming clear that applications of EM products can improve the function of materials in the field of construction. EM is used in construction around the world in various buildings.

In Almere, the Netherlands, there are two golden pyramids shining behind the dike. Here is a report from happy residents, Robert and Henriette about how they built this amazing EM Pyramid house!

**In 2011, we decided to build** two wooden pyramids according to the sizes and proportions of the Great Pyramid of Giza. The pyramids are made entirely of sustainable Northern European pine, with a concrete foundation enriched with Activated EM-1 (AEM) and EM Ceramic Powder. They are covered with gold-colored aluminum-alloy plates in the form of pyramid stones.

We heard about a house in Auroville, India, which was built with EM in the foundation, walls and paint, and thereby

became a stress-free home. It was a house full of harmony where nobody quarreled and even animals that quarreled outside, did not quarrel inside.

That inspired us to implement this idea in the concrete foundation of our pyramids. We enriched the cement with 4% AEM and 0.25 EM Ceramic Powder, so we would be able to place the pyramids on a base of harmony. An interesting phenomenon occurred: after settling, the concrete felt warm to the touch to our hands, while the temperature was below zero.





# EM Ceramics Application Examples

## Netherlands

### EM Pyramid: Power of Harmony

**The harmony we envisaged,** we can now feel and experience inside the pyramids. Influences from outside do not seem to be able to enter the atmosphere of the pyramids. This creates a sense of freedom in living.

Around the pyramids we dug a pond that we keep algae free with AEM, Pond EM-A\* and EM Mudballs.

The garden around the pyramids is naturally and sustainably maintained with EM Bokashi and EM Ceramic Powder. We make the Bokashi (fermentation) from fruit and vegetable pulp that we get free from a juice producer (the arrangement saves him thousands of euros a year in garbage disposal). The results included abundant plants in the garden and a heartwarming feeling.

Our chickens and rabbits are being fed with AEM sprayed food and their nest is cleaned with AEM. They are a very happy and healthy. The bees in our two beehives are fed and treated with AEM as well, which seems to make them more docile and friendly. We also feed close to a hundred wild birds with seeds treated with AEM.

**Every day, we drink EM-X GOLD,** take EM Sea Salt and eat produce grown with AEM. Recently, we started carrying EM SPACE MATE, which contains EM Ceramics, the effect of which seems to be a reduction of stress to nerves and the cells. We keep our leftover food in EM treated plastic boxes, which seems to keep the food fresh for a much longer time. The pyramids are kept clean with Wipe&Clean\*\*, which gives them a fresh clean appearance.

Author | Robert van Harten and  
Henriëtte Spetter  
<http://www.piramidewoning.nl>



\*Pond EM-A (EM enriched with more phototropic micro-organisms)  
\*\*Wipe&Clean: EM designed for cleaning  
Note: This is a personal opinion and experience



EM Research Organization, Inc.

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