



Alkaline
Hydrogen
Antioxidant

바이오세라
BIOCERA

Natural Antioxidant Hydrogen Alkaline Mineral Water



Advances in Bioceramic Material Technology

The belief that this is about raising the value of life.

We promise to be customer-centric until the day when we can be 100% satisfied.

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Location

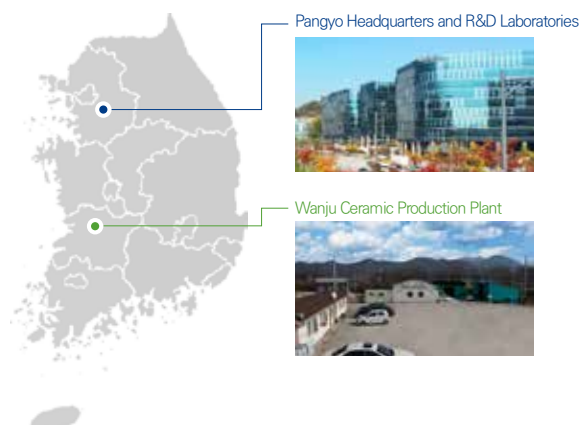
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All over the world, Biocera Co., Ltd
It is the history of hydrogen alkaline production, antibacterial
and photocatalytic ceramic materials.

Since 1994, Biocera has led the development and production of water, antibacterial, and air-related bioceramic filters, and has contributed to the improvement of industries that make healthy and safe water by applying ceramic ball (hydrogen alkaline water generation and chlorine removal) materials to water purifiers and kitchen filters.

In addition, it exports Biocera A (antibacterial agent) and deodorizing materials applied to air purification filters to more than 40 countries around the world, and is well received for providing high quality and various technical services.



A global company that supplies ceramic materials in the field of water purification, antimicrobial agents and enhancement of air quality.





Biocera Co., Ltd. thinks of the health and happiness of my customers first.

Biocera Co., Ltd. is a company that manufactures, researches, and develops eco-friendly bioceramic materials with applications in the fields of water, air, and antibacterial capacity. As indicated by the company's name, Bio means nature and life, and CERAMIC means high-tech that is widely used in ceramics, glass, semiconductors, batteries, aerospace, and artificial intelligence. The combination of the two words means "harmony of natural, life, and high-tech." The world around us is basically made of (+) ions and (-)ions. When water (heavy metals, chemical detergents, shampoo, and bacteria) and air (fine dust, smoke, and viruses) are contaminated, they tend to have an increased presence of positive ions. Biocera provides the optimal solution for maintaining human healthy by balancing the (-) and (+)ions in water and air.

When Daesung Ceramic Research Institute, the predecessor of Biocera Co., Ltd., was established, it took a vow to enhance the peace and happiness of mankind with eco-friendly products applied with ceramic materials. Starting with the development of antibacterial materials and air purification photocatalyst (TiO₂) filters and supplying them to leading domestic companies, we went on to supply the main hydrogen alkaline minerals-generating Biocera ceramic balls-as water purifier filter materials for domestic and overseas conglomerates. Biocera A.A filter, which generates hydrogen alkaline water by applying Biocera balls, is used for the nourishment of animals and plants in agriculture and livestock industries as well as purification fields such as water stations, mineral water plants, carbonated water machines, beverage vending machines, and alcohol vending machines.

In addition, we have developed eco-friendly healthcare products such as Biocera water purification jug pitcher and portable water bottles that make commercialized hydrogen alkaline water for healthy daily life, and Biocera laundry balls that remove chlorine and rust from tap water. Based on these offerings, we have built a global network with 40 countries as well as Korea.

We ask for your generous support and encouragement so that Biocera Co., Ltd. can further contribute to the spread expansion of eco-friendly culture for the global environment and human health through technology development that resembles the circulation principle of nature. Thank you.

CEO of Biocera Co., Ltd. Dr. Jeon

Dr. Jeon CEO | Doctor of Ceramic Inorganic Materials Engineering
Global Biocera Material Expert on Water, Antibacterial, and Air | A new intellectual patentee

Professor of Research on Hydrogen Fuel Battery Part
of Woosuk University Industry-Academic Cooperation Group
WQA certified water expert (CWS, Certified Water Specialist)
Industry-Academic Director of the Korean Water Society

He served as a member of the National Institute of Technology and Standards in the antibacterial field of KS standards in Korea

A researcher appointed by the Korea Ceramic Technology Institute

<International Seminar Speaker> Regular presentation of hydrogen alkaline water trends to seminars and exhibitions around the world such as WQA and Aquatech





BIOCERA has been the Only Technology in Bio-ceramic Materials Since 1994. We've been Working Hard to Become Self-Reliant.

Founded in 1994, Biocera has written a history of developing many first ceramic applications, manufacturing/supplying ceramic ball materials for hydrogen alkali mineral generation filters, chlorine and rust removal shower filters in water purification. In addition, we are pursuing growth as a company that creates a global health and hygiene culture throughout various aspects of life by applying Biocera antibacterial agents that suppress bacterial growth. The ceramic manufacturing plant in Wanju produces high-quality bioceramic materials through strict processes under the NSF (National Sanitization Foundation) screening regulations every year, and strives to maintain the highest levels of quality and safety.

Main Business Portfolio

Business field		
Water (Rotating Electromagnetic Wave) Antioxidant Hydrogen Alkaline Mineral Water	Antibacterial (Sanitary, Far Infrared Wave) Antimicrobial Agent	Air Air Photocatalyst TiO_2
BIOCERA Ball Catalyst carrier making water healthy in the area of water purification, showers and agricultural and livestock sectors	BIOCERA Antimicrobial Agent Control bacterial and viral growth for plastics and construction materials	BIOCERA Photocatalyst Eliminate sources of infection such as fine dust and bacteria of air purifier and air conditioner filter
		

Until Ceramic Materials are Applied to Water, Antibacterial, and Air Fields Expansion of BIOCERA's Base HISTORY

Research and development of eco-friendly ceramic materials with the heart of father for the healing of young daughter suffering from atopic dermatitis

1980s (Technology Acquisition from World-Class Ceramic Material Single Crystal Scientists)

Global leader in water, antibacterial and air bioceramics, founder of Biocera, Dr. Jeon studied "inorganic material engineering" at universities and graduate schools to fulfill his childhood dream of becoming a space scientist, and first encountered ceramics from a professor of American nationality. Ceramics are made by processing and molding inorganic materials that exist in nature, such as water and soil, at a high temperature. There are several traditional ceramic materials such as ceramics, glass, and cement. In addition, advanced ceramics, which have been developed for special functions by adding raw materials to new materials, are used in the manufacturing of bio, medical, semiconductor, smartphone parts, electric vehicle batteries, and spaceships. The principles of advanced crystal growth technology, which requires white sapphire, red ruby, and blue sapphire, which we studied with world-class French, American, and Russian material engineers, are the basis for the creation of the current Ceramic ball material. Since then, Dr. Jeon has become an international expert in bioceramic materials through acquiring a wide range of experience in the application of ceramic materials, combinations, molding methods, plastic process R&D and materials.



Year 1980

Study of Ceramic Materials in Universities and Graduate Schools The days of research and development

1990s (Pioneer in Developing BIOCERA Antibacterial, Photocatalyst, Alkaline Hydrogen Mineral Materials)

In 1994, the Daesung Ceramic Laboratory was established to develop/manufacture Biocera ceramic ball for hydrogen alkaline water generation Biocera-A antibacterial agents that inhibit bacterial and fungal growth, and Biocera-T photocatalytic material for air purification filters. There was a time when Dr. Jeon thought about solutions as a father when he saw his young daughter suffering from atopic dermatitis. The idea came from media reports dealing with sick house syndrome, acidic food, residual chlorine in tap water and residual detergents in clothes contribute to various skin diseases and atopic dermatitis. Based on the toy (glitter ball) that his little daughter used to play with, we developed eco-friendly ideas such as Biocera Laundry ball with ceramic ball material, Biocera A.A filter generating hydrogen alkaline water, Biocera A.A water purification jug, and a happy shower free of chlorine, rust, and larvae.



Year 1994

Promoting ceramic materials and ecofriendly products (After the establishment of Daesung Ceramic Research Institute)

2000s (Global Leader in Alkaline Water Filter Market)

Biocera A.A (Antioxidant Alkaline) has the world's leading brand power backed by certification from NSF International on the genuineness and safety of ceramic material, the core of hydrogen alkali mineral generation filters. The filters of the world's top domestic and foreign water purifier manufacturers, known for their sophistication, contain Biocera ceramic ball materials. The safety of the material is paramount because it is used to generate hydrogen alkali minerals and drinking water through the Biocera ball. Biocera is the first and only company in the field of ceramic balls to be certified internationally for material safety through the NSF/ANSI 42 rating provided by the world's most prestigious water-related certification body, NSF International. It has a global network in more than 40 countries around the world, and exports Biocera ball materials, Biocera hydrogen alkali filters, and eco-friendly healthcare products. In addition, it has acquired domestic and overseas intellectual property rights, obtained certification of FDA GLP Guideline Pass, RoHS, ISO 9001, etc. Furthermore, Biocera is a member company of WQA, the Korean Society of Water, and INNOCBIZ Association, and certified as a Parts Material Certification Company. Since 1994, both executives and employees have been doing their best to achieve the highest standards of safety and quality for human health through strict production management at Pangyo headquarters and Wanju production plants.



Year 2001

Relocation to Pangyo Headquarters (After changing the company name to Biocera)

The Best Quality Brings the Best Trust

Manufacturing of the Only Bio-ceramic Materials in
Water, Antibacterial Agent, and Air Fields : Biocera
the No. 1 Global R&D Company

1994 ~ 2001

Launch of Biocera, R&D into Technology and Products
Launch of Biocera Co., Ltd. and Lead Development of Bioceramics in the
Fields of Water, Antibacterial and Air Products

- 1994**
 - Establishment of Daesung Ceramic Research Institute
 - Development of a kitchen filter with antibacterial ceramic ball for water purification
- 1995**
 - Development of silver nano inorganic antimicrobial agents (BIOCERA-A)
 - Development of a deodorizing photocatalyst (BIOCERA-T)
 - Co-development of K Company's eco-friendly bio-paint
- 1996**
 - Patent Registration – Antibacterial Ceramic Composition
- 1998**
 - First phase commercialization of Biocera Detergent-free washing ball
- 1999**
 - LG Chem Artificial Marble – Application of Biocera antimicrobial agent
 - Joint development of anti-odor and antibacterial air filter with Daewoo Electronics
 - Launch of chlorine removal Biocera Dolphin Shower Head
- 2000**
 - Establishment of Biocera Co., Ltd
 - Samsung Electronics Bio Refrigerator Tray – Application of Biocera Antimicrobial Agent
- 2001**
 - FDA GLP Guidelines for Nontoxic Test Passed – Biocera Antibacterial
 - Designation as promising Small and Medium-Sized Enterprise for Export
 - Launch of Biocera Alkaline Jug

2002 ~ 2008

Improving Competitiveness by Commercialization of Materials
Expanding Differentiated Products and Developing the Alkaline Market

- 2002**
 - FDA GLP Guidelines Test Passed – Nano-optical Biocera Photocatalyst
 - Selection as an INNOBIZ certified company
 - Designation as a company specializing in parts and materials
- 2003**
 - ISO 9001 Certification for the Quality Management System
 - ISO 14001 Certification for the Environmental Management System
 - Launch of Biocera Softening Shower Filter
- 2005**
 - Patent Registration – Filter for manufacturing alkaline water
- 2006**
 - Join WQA Membership
 - KFDA Registration – Biocera Medical Substance Generator Based on Alkali Water Reactor
- 2007**
 - Started the Biocera A.A (Antioxidant Alkaline) brand name
 - Released Biocera A.A. Jug 2nd generation
 - Launch of RO System + Biocera A.A Filter
 - Launch of Biocera A.A Tea Bag
 - Biocera ceramic ball – commissioned for NSF International Safety Experiment
- 2008**
 - Biocera ceramic ball – Passed the NSF/ANSI 42 Safety Test conducted by NSF International



2009 ~ 2016

Acquired the World's Best Technology, Know-How, and Production Capacities

Leading the No.1 Hydrogen Alkaline
Drinking Water & Antibacterial Market



2018 ~ Present

Share Global Success Experience

Globalization of Healthy Water and Antibacterial Agent

- 2009** · Biocera ceramic ball – Passed the NSF/ANSI 42 Safety Test conducted by NSF International
· Biocera Washing Ball – Received the Minister of Environment Award for New Technology

- 2010** · Hyundai Motors interior material – Biocera Antibacterial Agent
· Patent Registration – Method of manufacturing of cylindrical ceramic ball by rotating method
· Biocera Washing Ball – Acquired the European CE Certification
· FDA GLP Pass – BIOCERA Antioxidant Alkaline Water

- 2011** · Dr.Jeon – Announces WQA Aquatech USA Seminar
– pH increasing Alkaline Water Filters
· Relocation to the Pangyo New Building

- 2012** · Dr.Jeon – Announced Aquatech INDIA Seminar
– Vitamin B₁₂ Concerned BIOCERA Alkaline Mineral Water
· Dr.Jeon – Announced Aquatech USA Seminar
– Dechlorination and Bacteria Removal with in-Showerhead Ceramic Filtration

- 2015** · Dr. Jeon – Announced the International Water Forum (Water and Health Functions)

- 2016** · Wannabe M Twingo Thermos – Biocera Antibacterial Agent
· Launched Premium AtoZero Happy Shower plus as new product
· Export of Chlorine Removal Shower (Japan C Company)

- 2018** · 〈Government Technology Development Project〉
– Ceramic ball and filter for the manufacturing of antioxidant hydrogen water
· Selection as a Youth – Friendly Small and Medium Enterprise

- 2019** · Launched Biocera Zero Shower & Zero Shower Filter
· The bathroom's flagship brand, D Company's functional shower
Supplies of Biocera chlorine removal balls







- 2020** · Company P's Pet Alkaline Water Purifier – Biocera Alkaline– Ball
· 〈Government Technology Development Project〉
– Evaluation of the antioxidant activity of alkaline water using ceramic balls
– Development of ceramic ball and filter type products for stable production of pH 8.5 alkaline water

- 2021** · Development of electrolytic sterilizer for home/medical/industrial use
· 〈Joint research project with Yonsei University Medical School〉
– Publication of an assessment on antioxidant, anti-inflammatory, and anti-stress activity for Biocera Alkaline water and Alkaline Hydrogen mineral

- 2022** · Designated as a promising environmental enterprise in Gyeonggi-do
· Selection of companies that support the acquisition of overseas standard certification in Seongnam City
· Development of mineral filter for hydroponics in progress
· Electrolytic sterilization water project with Biocera Ceramic Ball Filter for agriculture in progress
· Acquired NSF/ANSI/CAN 61, 372 of Biocera ceramic balls



BIOCERA Certifications

 <p>NSF NOMEXCELLENCE is tested and certified to NSF International against NSF/ANSI Standard 61 for health and safety requirements only</p> <p>COMPONENT</p>	 <p>NSF Certified to NSF/ANSI CAN 61 & NSF/ANSI 312</p>	 <p>Water Quality</p> <p>WQA Member Company A certified water specialist (CVS) certified by WQA, a member of the WQA (American Water Quality Association)</p>	 <p>Korean Intellectual Property Office</p> <p>Possession of original patents at home and abroad Patented technology for manufacturing ceramic balls at home and abroad: Korea, US, China, and Turkey</p>	 <p>ISO 9001 SGS</p> <p>ISO Certification of the Quality Management System The ISO 9001 certification is an international standard for quality management systems established and implemented by ISO</p>
 <p>MOOG Medical Devices Group</p> <p>Nontoxicity certification by FDA agency</p> <p>It is a safe material that has passed a non-toxicity test based on the FDA GLP Guidelines.</p>	<p>RoHS</p> <p>Certification based on Hazardous Substances Restriction Guidelines</p> <p>For electronic products exported to Europe, when the hazardous substances are below the standard level so it is considered harmless and certified for safety.</p>	<p>INNOBIZ 기술혁신형중소기업</p> <p>INNOBIZ</p> <p>The government certified that Biocera has the potential to secure competitiveness and grow in the future through technological innovation activities. It is a small and medium-sized enterprise that is eligible for preferential support.</p>	 <p>Product liability insurance</p> <p>We have subscribed to product liability insurance that provides compensation of up to 100 million won in the event of an accident</p>	



Provision of Bioceramic Solutions in Water, Antibacterial, Air, and FIR Energy Businesses

Biocera Co., Ltd. is a Korean company specializing in the manufacturing and research and development of ecofriendly bioceramic materials in the fields of water, antibacterial, air, and FIR energy since its foundation in 1994. Biocera has established a global network in 40 countries and is striving to develop and research ecofriendly products for customers' health and happiness with differentiated materials such as ceramic ball certified NSF/ANSI 42, NSF/ANSI/CAN 61, 372 and FDA GLP Guideline non-toxic antimicrobial agents and Photocatalytic material for air purification filters.

Water

BIOCERA Ball

[Drinking Water] Water is essential for health and life because more than 70 percent of the body is made up of water. Biocera ceramic ball is a catalyst carrier that increases pH and supplies hydrogen and minerals to make water healthier and enhance taste. It also makes water molecules smaller, increasing absorption.

[Washing Water] Applies to shower filters, kitchen and bathroom filters to remove residual chlorine from tap water and provides antibacterial function.

Antibacterial

BIOCERA-A, Antimicrobial Agent

For hygienic use from harmful bacteria, it is used in various fields such as water purifiers, carbon blocks, silicone hoses, artificial marble, wallpaper, paint, car interior, pot, dish dryer, cutting board, rubber gloves, pots, thermos, food containers, pencils, crayons, and paper.

FIR Energy

BIOCERA-SB, Far Infrared Energy

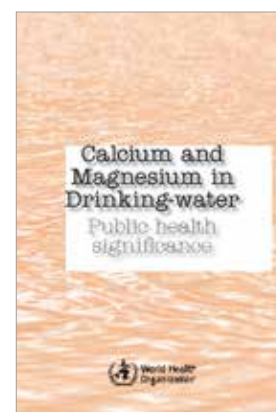
Far Infrared Ray has a strong penetration of the human body, so you can feel warm. Also, it increases the surface temperature of objects such as clothing, protectors, chairs, and bed mattresses, adding thermal effects and reducing energy.

More than 20 Years of Research on Water has Allowed Biocera to Recommend Standards for Healthy and Safe Water

World Health Organization (WHO) Recommends Certain Minerals in Water for Optimal Health Benefits

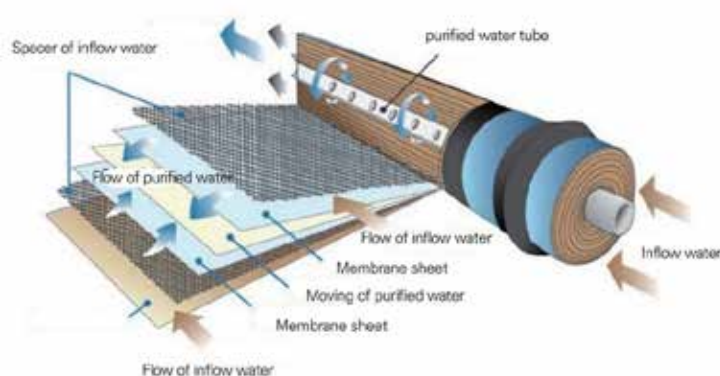




Water accounts for 70% of our bodily composition and 90% of our blood, and it is an absolute ingredient to support life, and essential for activities such as digesting and absorbing nutrients in our body, discharging waste, and maintaining body temperature. The World Health Organization (WHO) recommends the addition of minerals such as calcium and magnesium in water in order to compensate for the mineral imbalance caused by reverse osmosis. So, what is 'healthy water' for our bodies? Healthy water means water that is produced in a hygienic and clean environment, meets water quality standards, ensures safety from harmful substances, and contains balanced mineral ingredients that are beneficial to the human body. Minerals are one of the five essential nutrients (protein, fat, carbohydrates, vitamins, and minerals) to maintain life and health. However, minerals such as calcium, sodium, potassium, and magnesium, which are not produced by themselves in the body, must be consumed through food or drinking water.



Most Water Purifiers are Based on RO (Reverse Osmotic) Water Purification Methods: They Generate Mineral-Free and Acidic Water

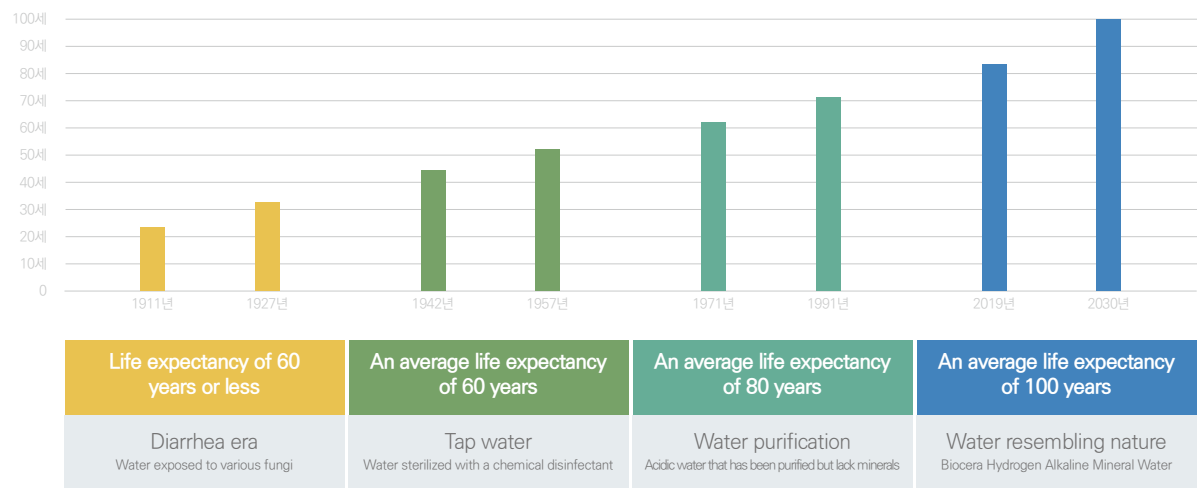
Most of the water purifier RO (reverse osmotic pressure) filters completely remove microorganisms, viruses, and particles of various heavy metals, which are only 0.0001 micrometer (μm), the size of a millionth of human hair. The RO based water purifiers offer pure and clean water more than any other water purification method. However, being too clean can be a problem. Water experts cite the presence of an appropriate amount of minerals such as calcium, magnesium, potassium, and sodium without harmful ingredients such as heavy metals and pollutants as conditions for "good water." However, RO-type water purifier filters filter harmful ingredients, including various bacteria, chemicals, and heavy metals as well as beneficial minerals and release acidified water for our consumption.



	+	
RO reverse osmotic pressure		BIOCERA A.A Filter
No Minerals acid water + Substances with ORP oxidation power No hydrogen		Rich supply of minerals pH Alkaline water – Water with ORP antioxidants hydrogen supply

For a Life Expectancy of 100 Years, What Kind of Water Should I Drink?

Drinking water has changed dramatically over a short period of time, from water exposed to various bacteria to tap water and purified water. In our times, there is much diversification in drinking water and water quality is improving. Nowadays, few people drink tap water right away, and it has become common to buy bottled water or drink water filtered through a water purifier instead. To achieve a healthier life expectancy of 100 years, you need to know more about water and find and drink good water as much as possible.



Blue Zone Water, the Secret of Over 100 Years of Age : Water with Alkaline pH Value, Containing Magnesium and Calcium Minerals

The world-renowned longevity village is called the Blue Zone. It means a village with a high proportion of population with high longevity, or a high proportion of persons over 100 years old to the total population of the village. The valley water of "Vilkabamba" in Ecuador, South America, and the water of "Hunja" in Pakistan are locally Water in the Hunza region of Asia and Pakistan Valley water in 'Vilkabamba' in Ecuador, South America called 'water of life'. The Nordenau mineral water in central Germany, Europe, which is famous for its exceptional health benefits, and the Lourdes spring water in France have something in common. Both contain beneficial minerals such as calcium and magnesium in the water and have alkaline pH values.



Water in the Hunza region of Pakistan



Valley water in 'Vilkabamba' in Ecuador, South America



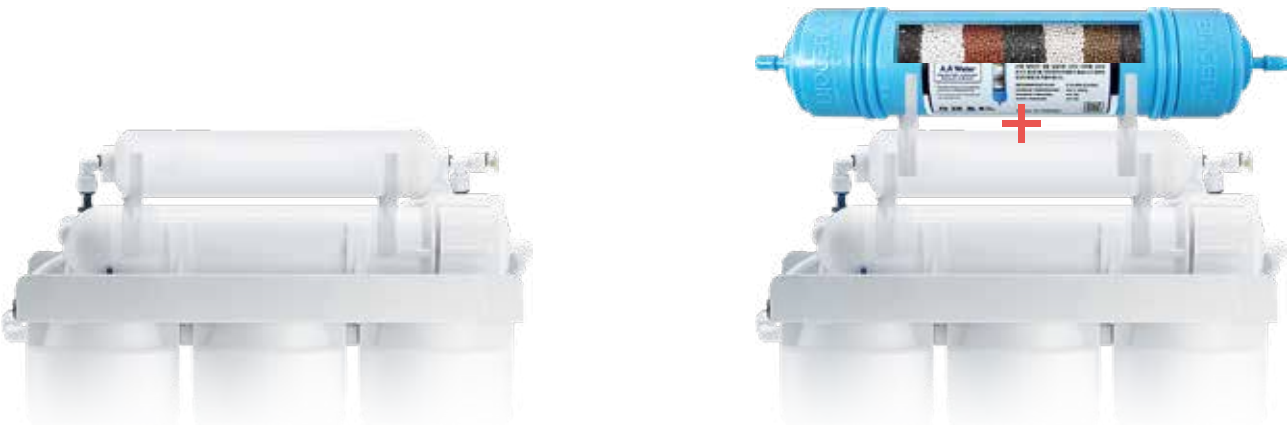
Nordenau mineral water in central Germany







Lourdes Spring in France

What if I Add a BIOCERA A.A Filter to My RO Purifier?

Try using a Biocera A.A (Antioxidant Alkaline) filter that adds hydrogen alkaline minerals to the RO filter used to make the water clean. It enhances the taste of water and the ingredients containing minerals make the water healthier, improving the quality of products such as household water purifiers, alkaline ion water purifiers, and hydrogen water purifiers.



RO Membrane Filter	Comparison of Filter	RO + BIOCERA A.A Filter
No Minerals	Mineral (TDS)	Rich supply of minerals such as Ca, Mg, K, Na
No Hydrogen	Hydrogen (H ₂)	Production of hydrogen
 + Water with ORP oxidation power	Oxidation-Reduction Potential (ORP)	 - Water with ORP andioxidation power
 pH Acidic		 pH Alkaline

Importance of Sanitary Safety in Filter Materials Used to Make Hydrogen, Alkaline, Mineral Water

What if Heavy Metals are Dissolved in my Drinking Water?

Interest in the quality of daily drinking water continues to increase thanks to the improvement of living standards and well-being, healing, and wellness. The water we drink is hygienically clean, but depending on the ceramic ball material brand added to the natural hydrogen alkaline filter, bacteria may multiply in the water or pollutants such as heavy metals and chemicals may be present.

Ceramic Ball Material Generating Hydrogen Alkaline Mineral Water

In order to prevent exposure to heavy metals in drinking water, it is utmost important to verify the safety of filter materials used in the water purifier. It is necessary to ensure that the material is certified to be internationally suitable for safety assessment or directly manufactured in Korea. Ceramic balls, which are used as filter materials for applications such as mineral water purifiers, alkaline ion water purifiers, and hydrogen water purifiers, are used to improve the taste of water and supply essential nutrients such as alkaline minerals to our body. It is very important to check whether Biocera ball are used for water purifier filters because heavy metals such as Pb, Hg, Cd, and As may be dissolved during the combination and firing of special mineral materials or contaminated organic materials, bacteria, and viruses may remain.



Check for Biocera INSIDE in All Safe Water You Drink

Biocera ball is used in filters of major domestic and foreign water purifier companies. It is an internationally certified bioceramic filter material that comes with high material safety and excellent sustainability, and offers benefits such as alkaline minerals in water.

Filter Material that Makes Purified Water Taste Better and Healthier

BIOCERA Ball

Biocera ball is mainly used as an embedded water filter material in the RO (Reverse Osmosis) water purification field. It increases the pH of cleanly purified water at reverse osmosis pressure to alkalinize it, and produces essential minerals such as Mg, Ca, K, and Na, which are essential for our body in addition to hydrogen that removes active oxygen. Furthermore, ORP of water is changed to Negative Ion to release water with antioxidant power.



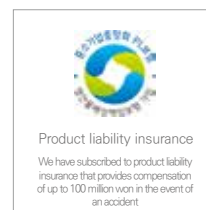
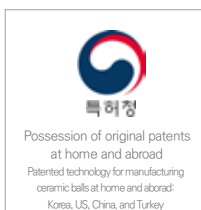
Lead free, Health effect, NSF certified BIOCERA ball Component, Aesthetic effect, Safety certified component

Applications

- For Household** Mineral water purifier / Cold and hot water purifier / Alkali ion water purifier / Hydrogen water purifier / Mini water purifier / Water purification carbon filter / European jug filter / Under sink filter
- For Industrial** Mineral water companies / Water stations / Alkaline bending machines / Alkaline filter for agriculture and horticulture / Pwwater filter for livestock / Fermented juice / Carbonated drinks
- For Washing** Chlorine removal shower filter / Shower filter for tap water / Vitamin shower filter / Kitchen faucet filter / Bathroom wash filter / Softening filter / Washing ball

Certifications and Patents

Harmful heavy metals such as Pb, Hg, Cd, As, and Cr, toxic substances, contaminated organic substances, and pathogens may not get eliminated properly when using low-cost ceramic balls. Biocera ceramic ball is a safe material certified for NSF/ANSI 42, NSF/ANSI/CAN 61, 372 safety by NSF International. In addition, it is a differentiated high-quality material recognized by the government and specialized institutions, as demonstrated by certifications and accreditations such as PCT patents in the United States, China, and Korea, ISO 9001, INNOBIZ, and KOITA corporate affiliated research institute. Since its establishment in 1994, Biocera has pioneered and led the commercialization of ceramic balls in drinking water, and offers the highest quality bioceramic ball materials used by large domestic and overseas water purification companies. Our Biocera balls are far above regular low-cost ceramic balls in terms of quality and safety.



The World's First and Only Biocera Ball: the Story of Acquiring the NSF International Safety Certification

The National Sanitation Foundation (NSF) is the world's most prestigious water-related certification body, officially designated by the World Health Organization (WHO) for its capabilities to certify drinking water and water purifiers. The NSF mark certification means international recognition for excellence in safety and performance. Additionally, in order to acquire the NSF certification, production facilities of enterprises can only be qualified by passing the examiner's visit and criteria for the verification test. Every year, the Biocera manufacturing plant in Wanju, Jeollabuk-do maintains the highest quality through strict external verification by international institutions on aspects such as sanitary conditions, quality control conditions, and acility conditions from the beginning to the end of ceramic material production.

Year 2006

Biocera launched the world's best international certification review for global standard certification of water purification ceramic balls, and started the application process for safety certification by NSF International.

Year 2007

At that time, there was no NSF International certification standard protocol for ceramic balls entering the cylinder water purifier filter material (Media), and the test items and measurements would be newly started by mutual consultation.

Year 2008

After discussing each item from the beginning and starting anew, the NSF/ANSI 42 material safety tests were passed after a long period of approximately 2 years.

Year 2009

The first and only eight types of Biocera ceramic balls were certified internationally by NSF International for material safety NSF/ANSI 42.

Year 2022

Again, the first and only case to acquire NSF/ANSI/CAN 61, 372 in ceramic ball industry for our eight types of Biocera ceramic balls to leap forward in the world.




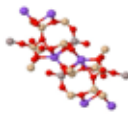

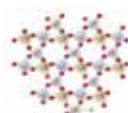

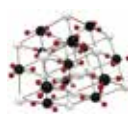

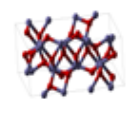
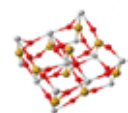

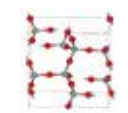

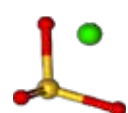

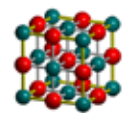
*The NSF mark is provided to a biocera ball in a glass container. It is certified as material only.

*Check out the 'NSF Official Listing' for Biocera Ball.

Types and Features of Biocera ball

- ✓ NSF/ANSI 42, NSF/ANSI/CAN 61, 372 material safety certification by NSF
- ✓ International quality catalysts that make drinking water taste better and healthier
- ✓ Antibacterial catalyst that removes residual chlorine from washing water and inhibits bacterial growth in water
- ✓ Lead free, Health effect, NSF certified BIOCERA ball Component, Aesthetic effect, Safety certified component



Product	Characteristics	Crystal structure and composition
 BIOCERA AG BALL	Ag ion is antibacterial, has excellent deodorizing power, and provides organic adsorption	 Zeolite, Silver
 BIOCERA SP BALL	Quartz vibration activates water molecules, and provides far infrared energy effects	 Quartz (SiO ₂)
 BIOCERA CA BALL	Ca-ion mineral is eluted with natural edible calcium and silica components	 CaCO ₃ , MgO
 BIOCERA PW BALL	Water molecular activity, pH alkalization with rare earth crystalline minerals, water pulse wave blocking, harmonic vibration, rotating electromagnetic wave, Qi Energy	 Rare Earth Material Hematite (Fe ₂ O ₃)
 BIOCERA IP BALL	Natural zircon crystals, containing silica ingredients, enhance the taste of water	 Zircon (ZrO ₂)
 BIOCERA TO BALL	Piezo: piezoelectricity activates water molecules, enables pH alkalization	 Tridymite (SiO ₂)
 BIOCERA RC BALL	Removal of residual chlorine, removal of trihalomethane (cancerous substances), Electrolysis by increasing Ca ion Electrolysis efficiency Alkaline ionized water	 CaSO ₃
 BIOCERA AO BALL	pH alkalization of water, hydrogen water generation, Mg, SiO ₂ mineral supply, -ORP antioxidant power reduction, PFAS Free	 MgO




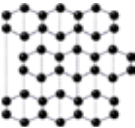


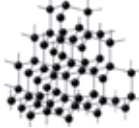
It Looks Similar in Size and Color, Biocera Balls of Value, such as Diamonds

Biocera ball was developed by studying the crystal structure of raw materials for a long time. Biocera ball maintains the continuous function of alkali hydrogen minerals when applied to water purifier filters. In addition, it is the only material that has been secured through rigorous production processes and authorized domestic and overseas certification in its own production plants. There is a reason to refuse to compare it with a regular low-cost ceramic ball that can produce heavy metals such as lead, cadmium, mercury and arsenic.



VS











Regular ceramic ball	Comparison of ceramic ball	BIOCERA Ball
Heavy metal such as Pb, Hg, Cd, and As may be present	Presence of heavy metals	NSF/ANSI 42, NSF/ANSI/CAN 61 & 372
?	Material safety certification	   NSF International, FDA GLP Pass, ISO:9001
?	In-house production	Self-produced by the Wanju Ceramic Factory
?	Know-how	Manufacturing and research related to bioceramic materials since 1994
?	Quality of water	pH alkalization and production of hydrogen mineral water -ORP
?	Country of production	Republic of Korea
  Weak and cheap quality like graphite	Value comparison	  The value of diamond-hard and expensive quality

Biocera Ball Material Applications

Eight types of Biocera ball certified for Material Safety by NSF International Health Association NSF/ANSI 42, NSF/ANSI/CAN 61, 372

Lead free, Health effect, NSF certified BIOCERA ball Component, Aesthetic effect, Safety certified component



Application		Filter Material Classification	
Materials used in drinking water	<div><div>〈Features〉</div><div><div>·pH alkalization</div><div>·Generation of minerals</div><div>·Hydrogen production</div><div>·Increase in antioxidant power</div><div>·Enhances the taste of water</div></div><div>〈Safety〉</div><div><div>·NSF safety certification</div><div>·ISO 9001 certification</div><div>·RoHs authentication</div></div></div>	<div><div></div><div><div>BIOCERA CA BALL</div><div>Ca-ion supports mineral elution with natural edible calcium and silica components, Lead Free</div></div></div>	<div><div></div><div><div>BIOCERA AO BALL</div><div>Enables pH alkalization of water, hydrogen dissolution, mineral supply, -ORP antioxidant reduction, Lead Free</div></div></div>
		<div><div></div><div><div>BIOCERA PW BALL</div><div>Water molecular activity, pH alkalization with rare earth crystal crystalline minerals, blocking electromagnetic waves and pulse waves, Qi Energy, Lead Free</div></div></div>	<div><div></div><div><div>BIOCERA SP BALL</div><div>Quartz vibrations support activation of water molecules, Far-infrared energy effect, Lead Free</div></div></div>
		<div><div></div><div><div>BIOCERA IP BALL</div><div>Natural zircon crystals, silica Contains healthy ingredients, improves the taste of water, Ca 이온 전기분해 알칼리 이온수 Lead Free</div></div></div>	<div><div></div><div><div>BIOCERA TO BALL</div><div>Piezo Piezoelectric Properties Activation of water molecules, Lead Free</div></div></div>
Material used in washing water	<div><div></div><div><div>BIOCERA TC BALL</div><div>Residual chlorine removal, Removal of trihalomethane (cancerous substances), Lead Free</div></div></div>	<div><div></div><div><div>BIOCERA AG BALL</div><div>Ag ion is antibacterial, has excellent deodorizing power, supports organic adsorption, Lead Free</div></div></div>	

※ The NSF certification mark indicates that the Biocera ball is certified for NSF/ANSI 42, NSF/ANSI/CAN 61, 372 safety only. It is not certified as a filter product.

Application of Drinking Water Purification Filter & Shower Filter

Application	Applied filter	Product configuration	Product life
BIOCERA A.A filter (Antioxidant Alkaline) (For home use) Biocera A.A filter <ul style="list-style-type: none"> pH alkalization Generation of minerals Hydrogen production Increase in antioxidant power Enhances the taste of water 	 <p>Purified Jug Filter 4" Filter 8" Filter 10" TCR Filter 11" Filter 14" Filter</p>	Purified jug filter	150 ℓ
		4" Filter	1,000 ℓ
		8" Filter	3,000 ℓ
		10" TCR Filter	3,000 ℓ
		11" Filter	6,000 ℓ
		14" Filter	9,000 ℓ
	 <p>Slim 10" Filter Big 10" Filter Slim 20" Filter Big 20" Filter All-in-one Composite Filter</p>	Slim 10" Filter *Filter housing must be purchased separately	10,000 ℓ
		Big10" Filter *Filter housing must be purchased separately	50,000 ℓ
		Slim 20" Filter *Filter housing must be purchased separately	50,000 ℓ
		Big 20" Filter *Filter housing must be purchased separately	150,000 ℓ
		All-in-one Composite Filter *UF + Carbon + BIOCERA Ball	150,000 ℓ
Apply shower filter Shower, kitchen filter <ul style="list-style-type: none"> Removal of chlorine Inhibition of bacterial growth 	 <p>Chlorine removal shower filter Sediment + Chlorine removal shower filter Sediment + Chlorine removal shower filter</p>	Chlorine removal Shower filter	Replacement of 1/5 remaining amount of BIOCERA RC Ball (4 to 6 month)
		Sediment + Chlorine removal Shower filter	2 to 3 months
		Sediment + Chlorine removal Shower filter	2 to 3 months

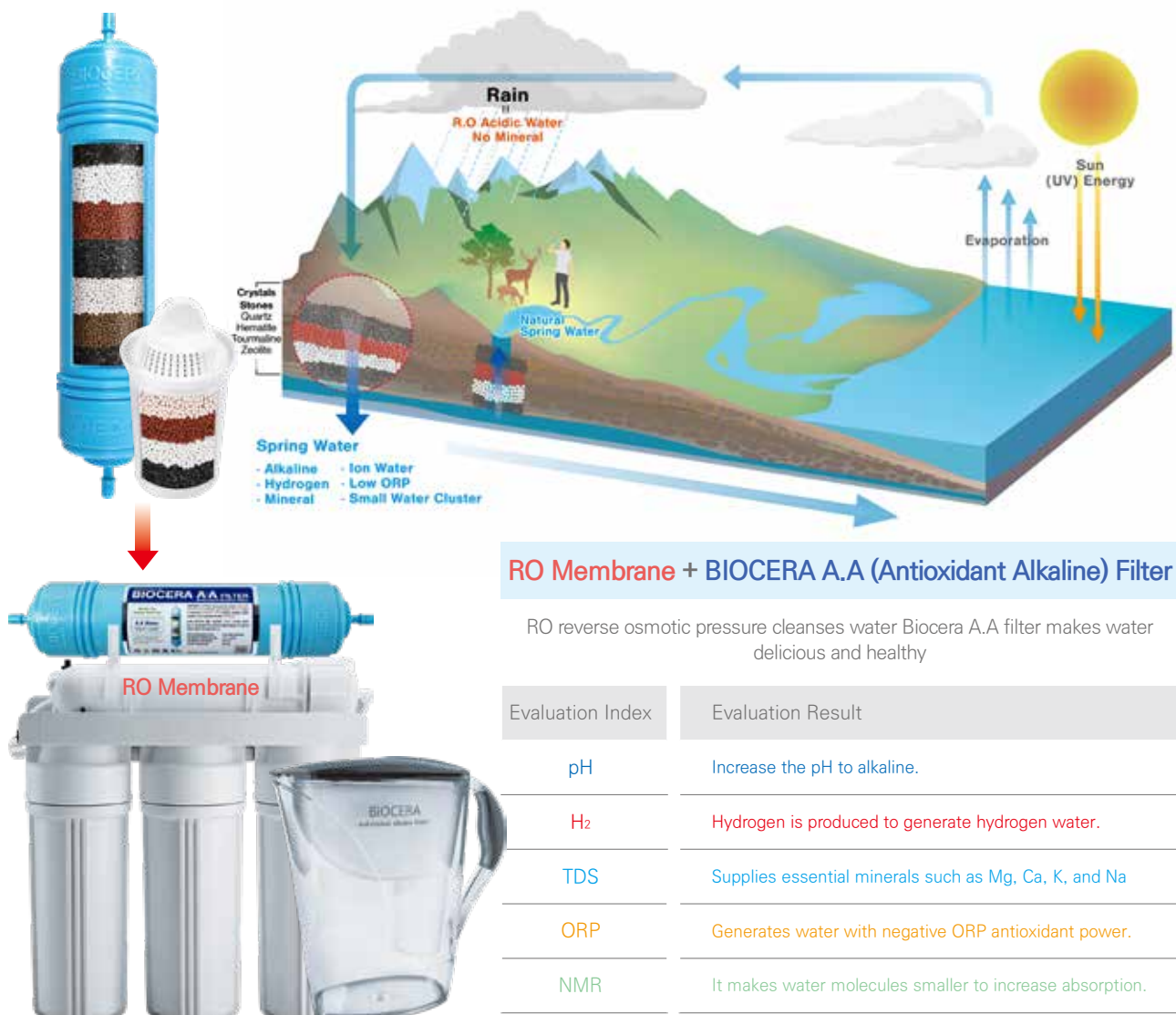
※ Home Biocera filters must be installed only in RO water purifiers.

Biocera A.A. Similar to Nature's Water Circulation Principles. (Antioxidant Alkaline)

Biocera's material business resembles the principles of natural water circulation as a metaphor. When water evaporated from solar energy becomes a cloud and falls down as rain (acidic) on the earth's surface, it naturally becomes healthy mineral water (pH alkaline hydrogen minerals) as it permeates into the mountains and the ground and circulates through the rocks in the stratum through which the water passes. For this reason, users benefit immensely when they install an additional Biocera A.A filter in the water purifier that adds an antioxidant, hydrogen and alkaline mineral using the natural water circulation mechanism. Biocera is the only company that thinks about the growth of plants and animals and strives to enhance the health and environment of mankind with live alkaline minerals.

Safe Biocera Ball that Passed the Water Quality Test

- Safety certification of NSF/ANSI 42, NSF/ANSI/CAN 61, 372 (Biocera Ball) by NSF International, which is difficult for even famous global water purifier companies to pass
- Biocera ceramic ball and Biocera A.A (Antioxidant Alkaline) filters have been developed by a Certified Water Specialist (CWS) certified by the WQA of the American Water Quality Association
- Biocera A.A (Antioxidant Alkaline) filter produces the highest quality hydrogen alkali water and is exported to more than 40 global water purification companies worldwide



Rain
R.O Acidic Water
No Mineral

Sun (UV) Energy
Evaporation

Natural Spring Water

Crystals
Stones
Quartz
Hematite
Tourmaline
Zeolite

Spring Water
- Alkaline
- Hydrogen
- Mineral
- Ion Water
- Low ORP
- Small Water Cluster

RO Membrane + BIOCERA A.A (Antioxidant Alkaline) Filter

RO reverse osmotic pressure cleanses water Biocera A.A filter makes water delicious and healthy

Evaluation Index	Evaluation Result
pH	Increase the pH to alkaline.
H ₂	Hydrogen is produced to generate hydrogen water.
TDS	Supplies essential minerals such as Mg, Ca, K, and Na
ORP	Generates water with negative ORP antioxidant power.
NMR	It makes water molecules smaller to increase absorption.

Biocera Ball to Remove Residual Chlorine from Tap Water

In water sources, chlorine is used in for filtration to remove various impurities from the water. Chlorine has a positive function in that it prevents various waterborne infectious diseases, but it produces trihalomethane (THM), a carcinogenic substance that is fatal to the human body. The Biocera RC ball applied to the Biocera shower filter removes chlorine remaining in the water to inhibit the production of the carcinogenic trihalomethane (THM).



BIOCERA RC Ball (Removal of Chlorine)

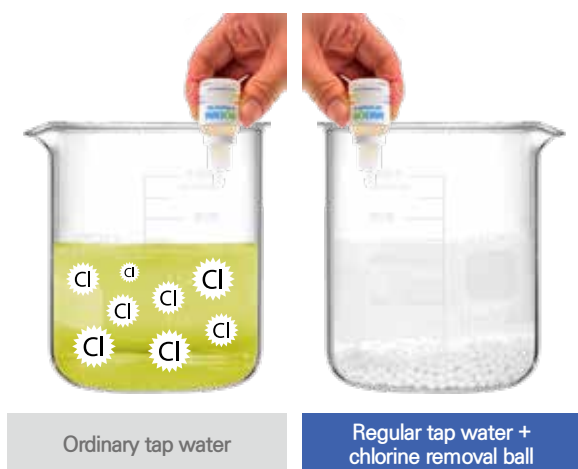
Chlorine is used to remove pollutant bacteria from household water sources. Biocera RC balls remove any residual chlorine used to prevent damage to human health. The Biocera RC Ball is designed to remove residual chlorine. Ca, an essential mineral ingredient, is eluted to supply calcium minerals to the body.

BIOCERA AG Ball (Antimicrobial Function)

Biocera AG Ball (Antibacterial function) suppresses the reproduction of various bacteria and fungi in tap water. It is a ceramic material with antimicrobial function. Furthermore, the antibacterial ball itself absorbs through fine pores., It is excellent for deodorizing effects such as removing bad odors from tap water.

Chlorine Removal Experiment

- At 200ml tap water in each beaker and test with the chlorine reaction reagent O-Tolidine.
- Biocera RC ball components react with residual chlorine to neutralize substances that are harmful to the human body.



Add test reagent to detect residual chlorine. Tap water turns yellow because of residual chlorine.

Residual chlorine is removed. No color response by residual chlorine.

Antimicrobial Function Experiment

- Used strain : *Escherichia coli* (ATCC 25922)
- Test method : KFlA-FI-1003
- Test results : 99.9% bacteria reduction rate



Escherichia coli growth detected

Eradication of E. coli by antimicrobial treatment

Applicable without Pesticide in Sprout Genseng Hydroponics, BIOCERA A.A Water Filter

Hydroponics is a method of fixing crops in a soilless state without using soil in various ways and cultivating crops with a culture solution in which essential elements necessary for crop growth are dissolved at an appropriate concentration according to their absorption ratio. Advantages include easy prevention of weeds and pests, easy quality control, and detailed control of plant growth, enabling increased production and control of harvest time.

Biocera Water Filter for Hydroponics



BIOCERA A Filter

Increases dissolved oxygen



BIOCERA B Filter

Removes residual chlorine



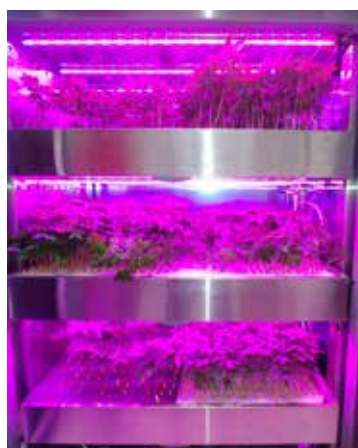
BIOCERA C Filter

Dissolved oxygen ↑ + Residual chlorine X



Company B is growing sprout ginseng hydroponically by applying raw water, sediment filter, and circulation pump.

Biocera Filter Applied Sprout Ginseng Cultivation Machine Test Status

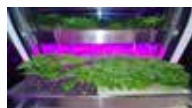


Sprout ginseng cultivation test machine



Upper part

- C type filter applied
- Optimal growth condition
- No Sclerotium cepivorum on the root



Middle part

- A type filter applied
- Optimal growth condition
- No Sclerotium cepivorum on the root



Lower part

- B type filter applied
- Optimal growth condition
- No Sclerotium cepivorum on the root

Biocera Alkaline Ionizer that Supplies Clean Water with a Direct Water Filter Without a Water Tank

Biocera Alkaline ionizers turn acidified body fluids into weak alkalinity and remove active oxygen that accumulates in the body during aging. Essential minerals such as calcium, potassium, sodium, and magnesium after different assimilation cleaning frameworks help advance the improvement of wellbeing and digestion. Alkaline water turns acidified body fluids into weak alkalinity and can remove active oxygen that accumulates in the body during aging. The little water groups from the Biocera Antioxidant Alkaline water purifier help hydration up to multiple times which is a compelling arrangement when got dried out than conventional demineralized invert assimilation water. Necessary minerals in the water encourage supplements and mineral assimilation effectively. Regular spring mineral water like Biocera Antioxidant Alkaline water purifier helps the excellent equalization of the minerals in the body.

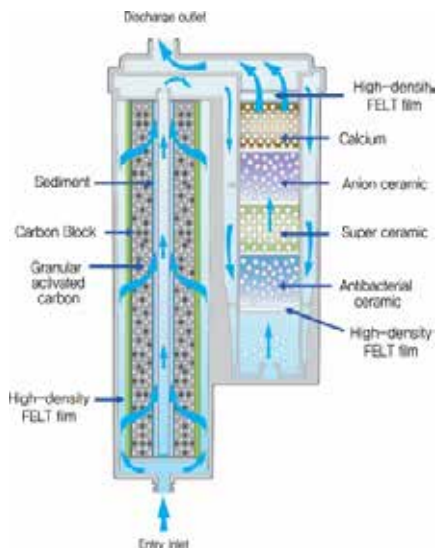


BIOCERA IONIZER ION-7600WN



BIOCERA IONIZER ION-7600WT

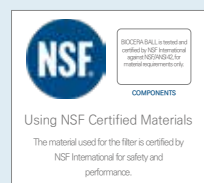
Patented Multi-Layer Filter Structure



Category	Material name
PART (1) (Filter section)	① High density FELT film ② Carbon block filter ③ Granular activated carbon filter ④ Sediment filter
PART (2) (Active water section)	⑤ Non-woven filter ⑥ BIOCERA AG Ball ⑦ BIOCERA SP Ball ⑧ BIOCERA IP Ball ⑨ BIOCERA RC Ball ⑩ High density FELT film

○ NSF Certified Safe Filter Materials

The Biocera balls inside the multi-layer filter is a safe material certified by the international authorized agency NSF/ANSI 42, NSF/ANSI/CAN 61,372. NSF is the most prestigious certification body to certify the quality of indoor environment, air, food and water, which means that the safety and performance of the product are recognized.



Successful Applications in the Field of Living Health

Biocera Ceramic Ball Applied in the Field of Living Health



Applied Filter

Alkaline water filter

Hydrogen water
filterMineral water
filter

Antioxidant water
filter



Applicable field

R.O Undersink

Direct water purifier

Sink water purifier

Refrigerator
water purifier

Applied Filter

Alkaline mineral water filter

Hydrogen water filter



Applicable field

Alkaline water purifier

Alkaline ionizer

Hydrogen water generator

Hydrogen generator



Applied Filter

Hydrogen alkaline water composite ball T-bag



Applicable field

Water purifier

Mineral water pitcher

Alkaline jug

Hydrogen water
bottle

Biocera Ceramic Ball Applied in the Field of Living Health



BIOCERA BALL Inside



Applied Filter

Carbon+UF filter Sediment filter Alkaline filter Mineral filter



Applicable field

Direct water purifier Mineral water purifier Hot and cold water purifier



Applied Filter

Chlorine removal showerhead filter Kitchen filter Sediment filter



Applicable field

Chlorine removal showerhead Chlorine removal showerhead filter Vitamin shower filter



Applied Filter

Hydrogen alkaline water composite ball T-bag



Applicable field

Pet water purifier to enhance water taste

Successful Industrial Fields

Biocera Ball, Applying filters in Industrial Fields



Applied Filter

Filter type	Industrial BIOCERA A.A Filter Big 20"
	Industrial BIOCERA A.A Filter Slim 20"



Applicable field

Bottled Water Factory



Applied Filter

Filter type	Industrial BIOCERA A.A Filter Big 20"
	Industrial BIOCERA A.A Filter Slim 20"



Applicable field

Water Vending Machine



Applied Filter

Filter type	Industrial BIOCERA A.A Filter Big 20"
	Industrial BIOCERA A.A Filter Slim 20"



Applicable field

Soda & Beverage Vending Machine

Biocera Ball, Applying Filters in Industrial Fields



Applied Filter

Filter type — Industrial BIOCERA A.A Filter Big 20"
Industrial BIOCERA A.A Filter Slim 20"

Applicable field

Water Stations



Applied Filter

Filter type — Industrial BIOCERA A.A Filter Big 20"
Industrial BIOCERA A.A Filter Slim 20"

Applicable field

Animal and Plant Nourishment Growth in Agriculture and Livestock fields



Applied Filter

Filter type — Industrial BIOCERA A.A Filter Big 20"
Industrial BIOCERA A.A Filter Slim 20"

Applicable field

Organic Fermented Juices

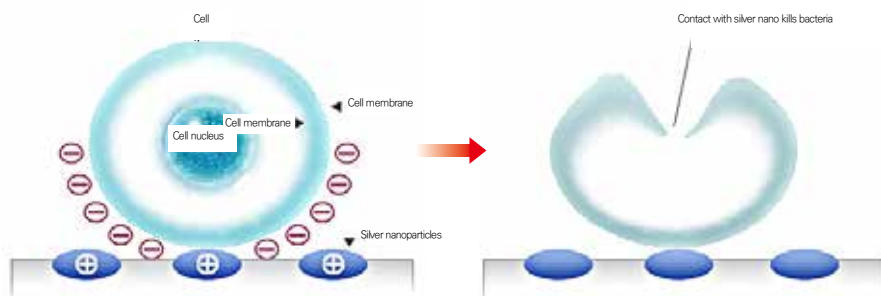
A Substance that Inhibits the Growth of Various Bacteria

Biocera Antimicrobial Agents

Biocera antibacterial agents are equipped with a large specific surface area and excellent heat resistance by replacing antibacterial metals with inorganic carriers such as Silver, Hydroxyapatite (HAP), alumina, and silica. They are safe non-toxic antibacterial agents with excellent affinity for the human body, and offer a 99.9% bacterial reduction rate and semi-permanent antibacterial durability when they come into contact with various bacteria. It is a material that has passed the FDA GLP Guidelines (U.S. Food and Drug Administration's excellent experimental test standard) and has been certified for safety with RoHS. It is very suitable for plastic, household goods, home appliances, sanitary products, packaging materials, cosmetics, fibers, leather and construction materials, which come with frequent bacterial contact.

Biocera Antimicrobial Mechanism

Inorganic antimicrobial agents with 99.9% strong antimicrobial power



Biocera Antimicrobial Test Results

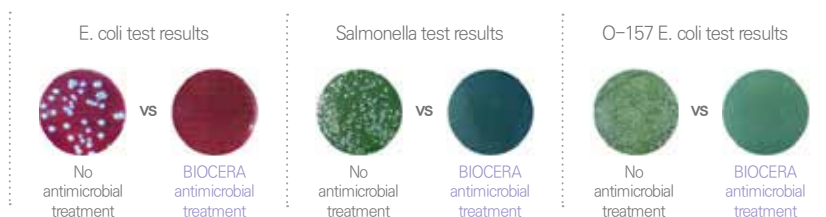
Used strain: Escherichia coli (ATCC 25922)

Test method: Film adhesion method

Sample composition: Biocera MB 5 wt% to Polyeth

Test conditions: Measure the number of bacteria after incubating the test fluid at 37°C for 24 hours

Film surface area: 5 cm × 5 cm




Applications


Field of Water Purification	Carbon block / Carbon block filter / Water purifier silicon hose / Waterproof sheet & waterproof cloth (large water tank) / Water purifier
Car interiors	Handle / Gear knob (stick) / Assist grip (handle) / A pillar / Seat / cushion / Handel cover
Architecture	Steel plate / Antibacterial film / Bidet nozzle / Artificial marble / Furniture / Table / Desk / Chair / Antibacterial sheet / Door handle / paint / wallpaper
Home	Refrigerator / Washing Machine / Air Cconditioner / Humidifier / Remote Control / Sanitary hand dryer / Hair dryer / Calculator / Iron / Iron
Kitchenware	Zipper bag / Pot / Frying Pan / Cutting board / Rubber gloves / Knife handle / Silicone ladle / Airtight container / Pottery
Plastic	Mobile cases / Thermos and lunch boxes / Food containers / Packaging material / Cosmetic cases / Keyboard / Mouse / Glasses / Earphones / Ballpoint pen
Toys	Pencil / Crayons / Color paper / Note / Sketchbook / Toys Box / Clay
Fiber & Artificial Leather	Fabric / Artificial leather / Leather / Bag / Shoe insol es / Shoes / Hat / handkerchief / Gloves


World's Best Quality and Safety Non-Toxic Antimicrobial Solution

Biocera Antimicrobial Agent & Biocera A.A Powder

- ✓ Passed non-toxicity test based on FDA GLP Guidelines
- ✓ Passed the RoHS hazardous substance detection test for enhanced safety
- ✓ Antibacterial effect with semi-permanent persistence that suppresses bacterial growth by 99.9%

	Sortation	Biocera-A (Antimicrobial agent)
	Formulation	Fine white powder
	Purpose	Plastic resins, carbon blocks, car interior materials, kitchenware, building interior materials, Most commonly used antimicrobial powder additives for purposes such as sanitary containers and toys

	Sortation	Biocera-MB (Antimicrobial agent)
	Formulation	Beige color solid
	Purpose	Durable refrigerator, bidet nozzle, dish dryer, thermos, antimicrobial solid additives used in washing machines, and plastics.

	Sortation	Biocera A.A Powder (hydrogen alkali mineral production)
	Formulation	Fine gray powder
	Purpose	It is a material that is applied to hydrocarbon blocks to increase the pH of water. The powder additives dissolve hydrogen and minerals.

● Certifications and Patents

MOOG
Medical Devices Group

Nontoxicity certification by FDA agency

It is a safe material that has passed a non-toxicity test based on the FDA GLP Guidelines.

RoHS

Certification based on Hazardous Substances Restriction Guidelines

Electronic products exported to Europe, require safety certification that hazardous substances are below the standard level that the human body can tolerate.

fidi

Korea Textile Testing Laboratory

Antivirus certification from FITI test researcher regarding the Safety of antimicrobial and antimicrobial performance. It's a proven material.

특허청

Possession of original patents at home and abroad

Patented technology for manufacturing ceramic balls at home and abroad: Korea, US, China, and Turkey

Successful Application of Biocera-A

Biocera-A Antimicrobial Agent / Biocera A.A Powder

- Most commonly used antimicrobial powder additives



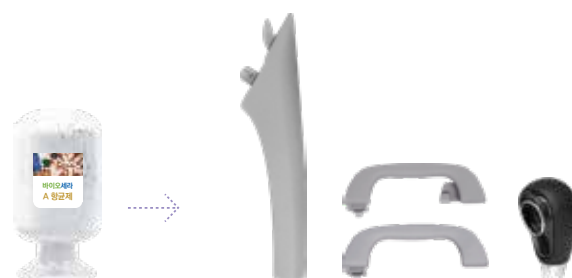
Applied materials	Biocera-A & Biocera A.A Powder (Hydrogen alkaline mineral production)
Applicable field	Antibacterial carbon block filter / Hydrogen carbon block filter / Alkali carbon block filter



Applied materials	Biocera-A & Biocera A.A Powder (Hydrogen alkaline mineral production)
Applicable field	Antimicrobial soap / Hydrogen soap



Applied materials	Biocera-A
Applicable field	Artificial marble



Applied materials	Biocera-A
Applicable field	Gear knob / Assist grip / A filler



Applied materials	Biocera-A
Applicable field	Water purifier silicone hose



Applied materials	Biocera-A
Applicable field	Waterproof sheet / Cloth



Applied materials	Biocera-A
Applicable field	Silver nano antibacterial pencil / Colored paper / Crayons / Clay



Applied materials	Biocera-A
Applicable field	Artificial turf (golf, tennis court, soccer, baseball, badminton, yard, terrace.)



Applied materials	Biocera-A
Applicable field	Paint / Enamel / Glaze



Applied materials	Biocera-A
Applicable field	Antimicrobial zipper bag for baby



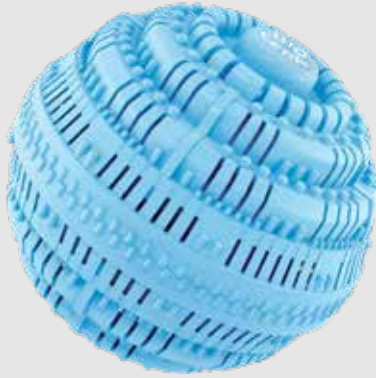
Applied materials	Biocera-A
Applicable field	Antimicrobial shoe insoles



Applied materials	Biocera-A
Applicable field	Anti-slip pads (anti-bacterial, anti-fungal)

Eco-friendly original detergent-free laundry ball

Biocera Laundry Ball



Durable special material
Does not explode in the
washing machine

330 times available
Reduces the cost of
detergents

Award from Ministry of
Environment
European CE Mark
Certification

Using Biocera Ball
certified by
NSF/ANSI 42
NSF/ANSI/CAN 61, 372

Durable PC material
resistant to shocks



An eco-friendly laundry ball that
provides superior wash without
detergent



You can use it without worrying
about skin diseases such as atopic
dermatitis

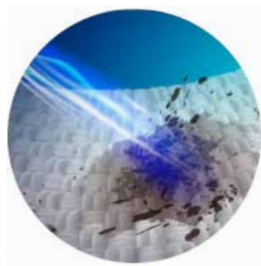


Deodorizing power of the washing
ball

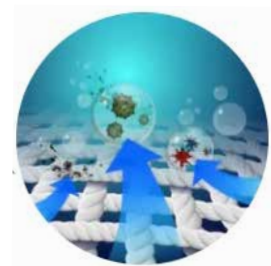
How is it Possible to Wash Without Detergent?



Laundry contaminated with all
kinds of dirt and germs.



The Biocera ball generating
fine wavelength energy



The wavelength energy vibrates the
water by weakening the union of
molecules. Cleans dirty laundry by the
principle of clean extraction.

Biocera, the World Pioneer and Leader in the Eco-friendly Laundry Ball Industry Since 1994

Some people suffer from atopy every spring. The number of people who complain of coughing, sneezing, itching, allergies, etc. is also increasing. Above all, there are some people who show allergy symptoms to foods, detergents, shampoos, etc. that are not environmental factors. Some people worry during the spring because they suffer from allergies that cause coughing, blistering, itching, sneezing and seizures. Also, the number of people suffering from various dermatitis is increasing. Some acidic foods, chemical detergents, fine dust, and yellow dust cause asthma and atopic dermatitis, causing discomfort and pain in daily life.



Dr. Jeon's first daughter interview on Biocera laundry ball testimonial



Dr. Jeon's second daughter interview on Biocera laundry ball at CES exhibition

How Can I Wash It?



1

Socks with dirt (fine dust, bacteria) on them
I'm going to wash it with
Biocera Laundry ball without detergent.



2

Please put in the biocera Laundry ball.
One ball for laundry weight of 5 kg or less
Two balls for laundry weight of 10 kg or more



3

The stains on the socks were washed clean.

How to Use Eco-Friendly Biocera Laundry Ball

Q. What is the washing method?

- A. You can do using with the standard washing method as usual. Please put the Laundry ball in the washing machine instead of the detergent before starting the laundry.

Q. What should I do with the washing ball that I used after washing?

- A. Leave the used Laundry ball in the laundry. Biocera antibacterial balls suppress bacterial growth in the washing tank and remove unpleasant odors.

Q. My skin is sensitive. Can I use it?

- A. Laundry Ball, which is a natural material and harmless to the skin, is safe because it has no chemical ingredients such as detergent residues or fluorescent substances.

Q. How long is the product life of the laundry ball?

- A. With semi-permanent properties, the laundry ball has excellent cleaning durability up to 330 times. You can replace it after 3 years.

Filter shower with chlorine removal ball for the first time

Biocera Premium Atozero Showerhead & Zero Showerhead



The water pressure is strong
The current is soft

Removing harmful
substances from tap water
for skin protection

Water saving effect

Using Biocera Ball
certified by
NSF/ANSI 42
NSF/ANSI/CAN 61, 372

Durable PC material
resistant to shocks



A shower that even babies can use
safely



Ceramic balls are very effective for
atopic dermatitis and skin psoriasis



Double filtration is effective on
removing harmful substance in water

Biocera Showerhead Removes Chlorine, Increase Water Pressure, and Prevent Bacterial Growth



Sediment filter



Ceramic ball filter

○ Sediment filter

- Removes larvae, rust, harmful substances, and micro-plastics
- Removes fine debris and rust

○ Ceramic ball filter

- Removal of residual chlorine
- Removal of THM (tri-halometane)

Atopic Dermatitis and Skin Irritation Prevention, Biocera Atozero Showerhead

UnSafe Earth!
Plastic, Detergent, Chemicals!

VS

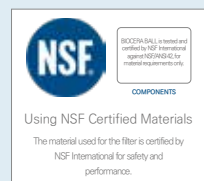
Save Earth!
Save Water!



Use Biocera RC ball in the showerhead filter to remove residual chlorine in tap water. Chlorine, impurities, and larvae in the tap water we use every day can cause atopic dermatitis or scalp diseases. Protect your skin safely through water saving, gentle current, and removal of harmful substances through the Biocera shower.

○ NSF Certified Safe Filter Materials

The Biocera RC ball inserted into the Biocera zero shower filter is a safe material certified by the international authorized agency NSF/ANSI 42, NSF/ANSI/CAN 61,372. NSF is the most prestigious certification body to certify the quality of indoor environment, air, food and water, which means that the safety and performance of the product are recognized.



The world's first ceramic ball-applied water jug pitche(Pitcher), jointly developed by Germany, Poland, and Korea

Biocera Alkaline Jug



Filter Housing
BPA-Free Material

A scale indicator to check
filter replacement time

Molecular structure of water ↓
Absorbability ↑
Ion Energy ↑

Eliminate hazardous substances
including heavy metal
contaminants



Hydrogen and mineral elution
increase pH alkaline



Easy replacement of filter



Untact product washing directly
without door-to-door inspection

Safe Products Certified for Quality by the Highest International Accreditation Authority



ISO Certification of the
Quality Management System
The ISO 9001 certification is an international
standard for quality management systems
established and implemented by ISO



Non-detection of harmful
ingredients LGA certification
This product has been certified as a safe and eco-
friendly product without organic compounds and
harmful ingredients detected by a German public
inspection agency.



Safe BPA Free Container
SK-ECOZEN is a safe material
that does not detect Bisphenol-A
(Environmental Hormone)
as a material used in baby bottles.



Product liability insurance
We have subscribed to product liability
insurance that provides compensation
of up to 100 million won in the event of
an accident

*Only BIOCERA BALLS are certified by NSF International only.
*The filter is not certified by NSF.

Biocera, the World Pioneer and Leader in the Alkaline Jug Industry, Since Early 2020

Biocera developed the world's first alkaline-reduced return jug in collaboration with a German jug company in the early 2000s. BioCera Return Jug entered the European market with the brand name 'Antioxidant Alkali BioCera' as a product with an alkaline mineral function. The meaning of 'return' means 'return to nature'. Today, people are immersed in high cholesterol foods, caffeine-rich drinks, and irregular diets. In addition, the world is becoming more vulnerable due to environmental pollution, and it is surrounded by factors that harm health by the habit of avoiding water. CEO Dr. Jeon Hyoung-Tag gave the meaning of "return" in hopes of reducing the bad dietary habits of modern people suffering in this environment and living a happy life by drinking the alkaline mineral water that their ancestors used to drink.



AQUATECH AMSTERDAM Water UK CEO's interview
'Why We Chose Biocera as Our Partner'



The process of manufacturing Biocera A.A Jug at the Polish plant

Safely with Natural Coconut Fruit and Natural Mineral Ingredients in the Filter!

Biocera Water Purifier Filter

Inside the filter

Activated carbon mainly composed of natural coconut fruit

It removes chlorine, chloramine, chromaticity, turbidity, particulate matter and heavy metals that impair water taste and odor, etc. It absorbs impurities and cleanses them.

Biocera ball, whose main ingredient is natural minerals

- AG Ball – Antibacterial ion, excellent deodorant, organic adsorption
- SP Ball – Activation of metabolic functionality by generation of far-infrared energy
- AO Ball – Alkali antioxidant to raise the pH of water

- Delicious drinking water

It purifies tap water
Change it to delicious water

Coffee and tea

Make coffee and tea faster
It brings out the taste and flavor

Make it delicious

It makes the food taste better
Available for cleaning purposes

Economical

Reduce the disposable waste
No rental fee is required

Alkaline, mineral, and hydrogen water generation premium water that resembles the principle of natural water generation

Biocera A.H.A Bottle



Safe BPA Free Container

SK-ECOZEN is a safe material that does not detect Bisphenol-A (Environmental Hormone) as a material used in baby bottles.

Using Biocera Ball certified by NSF/ANSI 42 NSF/ANSI/CAN 61, 372

Antibacterial and Antioxidant for clean water

Soft water for drinking

Portable water bottle for user convenience

Natural filtration filter Produce alkaline water



Grip that fits in one hand



Natural filtration filters make water more delicious



Increases the pH level of water hydrogen and mineral production

Make the Water You Drink Every Day More Delicious and Healthier!

Put bottled water or purified water in a bottle. The Biocera ceramic ball built into the natural filter comes into contact with water to increase pH to alkaline values, making it water with antioxidant power (–ORP). It also dissolves minerals and hydrogen necessary for our body, makes water molecules small, making it soft and delicious.



SK-ECOZEN material used



Non-detection of harmful ingredients LGA certification

Biocera, the World Pioneer and Leader in the Alkaline Jug Industry Since 1994

Save Water! Save Earth! Save World!

with **BIOCERA** Eco-friendly Life Solution



BIOCERA X **ESG** Environmental
Social
Governance



Before



After

Sediment filter and patented ceramic ball filter!

Biocera Zero Shower Filter



Remove rust, chlorine
and larvae

Double filter structure
removes hazardous
substances

Using Biocera Ball
certified by
NSF/ANSI 42
NSF/ANSI/CAN 61, 372



Can be installed on the
shower handle



Can be installed at the bottom of
faucet



A small and lightweight
shower filter

At the Very Start of the Day, Feel the Change in Washing Water !

Double filter structure Hazardous substances ZERO



Sediment Filter
Adsorption and
removal of rust

BIOCERA Ball
Removes
residual chlorine

Discoloration of the filter Check it out with your eyes



Before
Cleanliness

After
Contaminated
discoloration

Chlorine reagent reaction

Tap water **vs** Tap water passed
Biocera shower filter



Tap water
Yellow = Chlorine
reaction

Tap water + BIOCERA Ball
No color change

A pleasant start to the day with the scent of fresh fruits and vitamins

Biocera Fruit Vitamin Shower Filter

Black Cherry

Fresh Grapefruit

Sweet Mango



Biocera AG Ball's
antibacterial effect

Vitamin C and milk powder
to give whitening &
moisturizing

Removal of residual chlorine
and rust

Skin health and
aromatherapy



Can be installed at the
bottom of faucet



Can be installed on the shower
handle



Experience fragrant shower
therapy

At the Very Start of the Day, Feel the Change in Your Washing Water!

You can now take a fragrant therapy shower every day without a bathtub. The scent of fruits in the shower filter's highly concentrated vitamin gel helps you feel good at the beginning and end of the day, and natural vitamin C supplies nutrients to your skin. In addition, the Biocera chlorine removal ball applied to the bottom of the filter removes the disinfectant (residual chlorine) of the tap water and converts it into safe water. It is certified for non-irritating skin safety, so you can use it for sensitive skin with confidence.

- Recharge your vitamins and moisture while washing your body and mind exhausted from stress !
- Who wouldn't want to experience a variety of fruit scent therapy!
- A good solution for pregnant women suffering from fishy smell of water!



Six Reasons for Leading Companies to Choose Biocera!

Eco-friendly Global Biocera Material Protects Humanity and Earth

- 1 **Global Networks Ceramics Materials**
Materials trusted and used by large enterprises in more than 40 countries in Korea and abroad
- 2 **Leading Materials Expert in World Technology**
Has master's and doctorate-level expertise in water and antibacterial materials
- 3 **Market Leader for Healthy Water and Antibacterial Materials**
We participate in international water seminars and exhibitions such as WQA and Aquatech every year
- 4 **Incomparable Quality Certification for the Material**
Acquisition of international certification and intellectual property rights such as NSF International
- 5 **Manufacturing and R&D Specialist Since 1994**
Own ceramic manufacturing plants and subsidiary laboratories
- 6 **Best Marketing and Branding Value Benefits**
Using biocera certification, providing promotional materials, and marketing support



World's Best Quality and Safety Certifications & Patents

Authentication and registration

[Overseas] Certification and Registration

- ① NSF for ceramic ball (NSF/ANSI 42, NSF/ANSI/CAN 61 & 372)
- ② WQA's CWS Water Expert Certification, WQA Membership
- ③ Biocera Antibacterial and Photocatalyst, FDA GLP Guidelines for Nontoxic Safety Standards
- ④ CE Authentication

[Domestic] Certification and Registration

- ① ISO 9001 Quality Management System Certification
- ② Selection as INNOBIZ Technology Innovation Small and Medium Business
- ③ Certification of RoHS Hazardous Substances Restriction Guidelines
- ④ Certification by KOITA Enterprise Research Institute
- ⑤ 생Subscription to product liability insurance

Patent PCT

[Overseas] Patent PCT

- ① International, United States, China, Turkey, Malaysia
 - Method and apparatus for manufacturing spherical ceramic balls by rotary method

[Domestic] Patent PCT

- ① Methods for manufacturing of ceramic balls
- ② Filter for manufacturing alkaline reduced water and device
- ③ Functional ceramic composition
- ④ Antibacterial polystyrene paper for food packaging

Trademark / Design

[Domestic and Overseas] Trademark and Design

- ① Korea, USA, China, Russia, Turkey, Mexico, Vietnam, Malaysia, Indonesia, and more





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[Factory] Mangyeonggang-ro, Bongdong-eup, Wanju-Gun, Jeollabuk-do, S.Korea

