

Clean Power, washing without detergent, makes Environment Friendly, Healthy and Economical.

> 2024.11.25 Sanluke Co.,Ltd.

## Introduction of Clean Power

Laundry is Changed by the Force of the Ceramics !

The product which provides natural and ecological washing without using the detergent and gentle to skin .

In this climate change and serios environment concern, SDGs, health issue and living economical issue and necessity of saving money, Clean Power gives the solution for these subjects.

After the engagement in the development of functional ceramics in Mitsubishi Chemical Corporation. Having discovered that certain ceramic particles in contact with the water activate it and enhance its cleaning power, I could produce the product in 1991 by the first time in the world

It was no easy task to break down fixed concept that it is not possible to wash without detergent. Growing awareness of environment and existence of many people who used our product encouraged us a lot, however, In addition to that, in 2001, SANYO Electric Co., Ltd. Started selling a washing machine with detergent zero course by first time as washing machine manufacturer with a great response. By this opportunity, interest in our products has been increased. After repeated research and experiment, we have sold over 1,200,000 sets in the world and well accepted by the users.

## Clean Power is Environment Friendly, good for Health non allergenic, highly Economical and Reliable.

#### **Environmentally Friendly**

Clean Power add no chemicals to the laundry water, and is reusable up to 700 times (about 2 years). It eliminates hundreds of pounds of polluting chemicals found in the ordinary laundry detergents it replaces.

70% of the water pollution was by the domestic waste water, and the biggest factor was washing drainage. Our motivation for the development of tools that could wash without detergent was just here.

Clean Power reduces CO2 consumption about 12.8kg per year, and save water consumption.

#### Good for Health, Non Allergenic

Clean Power is not contain detergents and chemical substances such as fluorescent agents, softeners, and fragrance materials, it is a gentle washing process even on the sensitive skin of babies. It is the perfect answer for those who suffer from allergies to these substances. Clean Power is using epoch-making ceramic particle, which is not elute any ingredient, and which makes no remaining behind clothing, no smell and soft finishing after washing , which is gentle on skin.

#### Highly Economical

Compare what you spend in a two-year period on laundry detergent to the price of one Enviro-Disc, and you will recognize astonishing savings.

It saves around 51/ year for the cost of detergent.

Also saving water consumption, since rinse is just once with Clean Power instead of twice with detergent. It saves around 1/3 of water consumption, 65L/time of water and about \$40 save per year.

So, Clean Power saves detergent and water cost total around \$91 per year.

### High Reliability

Industrial Research Institute of Ishikawa Prefecture (URLhttp://www.irii.go.jp/) has carried out a detergency test comparing our product with commercial detergent in washing dirty clothes with source, wine , soy sauce and coffee. The test showed practically no difference in washing performance between them. University of Minnesota in the HP(<u>http://www.extension.umn.edu/water/</u>) under the article `Effectiveness of Reusable Ceramic Laundry Disks' reports that the result of the comparative experiment that the effectiveness of ceramic disk as positive.

Since the launch of Clean Power, we have sold over 1,2000,000 sets of Clean Power in the world. And well accepted from a lot of users.

## **Clean Power Product Outline**

How the product functions

Washing water will contact with the ceramic particles in the disk. The far infrared rays radiate from the ceramic particles subdivide the water molecules, making them strongly pervious and giving dissolving power. So they penetrate into the fiber and remove dirt.

Configuration of Clean Power

Plastic case with water passage holes(polypropylene) Float ring (polyethylene) Activated ceramic particles The disk is composed of the above elements case fitted with a float ring and water passage holes, and full of ceramic particles.

#### Easy to Use Clean Power

Just putting two disks into the washing machine. Leaving them in the machine until the washing is over.

#### (Caution/Recommendation)

Do not use them for the dryer. Hot water is more effective than cold water.

Since Clean Power does not use fluorescent agents, you may have an impression that stains on the collar of white shirts is not pure white.

In addition, it is no smell and not fragrance because it does not use fragrance materials.

In addition, we do not use fabric softener, but it is highly flexible.

If you want, you can put some of these material and detergent together with Clean Power.

## Customers' Voices

1 I can no longer part with this product, which makes no skin damage of my grandson caused by detergent (continuous use for 15 years) Female in her 70s (Osaka area Japan)

2 You don't have to buy detergent. My family of 7 members washes a lot and uses a lot of detergent. I was worried about the remaining amount of detergent, but I didn't need to buy it, so I didn't need a detergent storage place. Female in her 50s (Hokkaido area Japan)

3 You can feel the savings. Saving can be confirmed on the water and the invoice payment of detergent has disappeared

4 I inquired with the manufacturer about the use of fabric softener. They replied that Soft finish without adding softener can be made with Clean Power. Please try it once. So I did not put softener in. After washing, I decided not to use softener after confirming that there was no problem with the fluffy finish. Female in her 40s (Kanagawa prefecture Japan)

5 There is no unpleasant smell from clothes dried in the room. I thought it was the sterilizing effect of ceramics Male in his 50s (Tokyo area Japan)

6 Increased interest in environmental issues in daily life with more opportunities to discuss environmental issues with families. I felt that it was meaningful to do so.

# Test Result of Ishikawa Industrial Experiment Station

## 1. Cleaning test conditions

item	Clean Power	Detergent	Water volume / temperature
1	Yes	No	30L · 40 degree C
2	No	Yes(20g)	30L·40 degree C

### 2. Cleaning test results Comparison of color differences

Dirty cloth	source		wine		soy source		coffee	
	Before washing	After washing						
1	36.43	7.14	15.20	5.96	27.67	6.80	21.89	7.71
2	35.03	6.99	16.15	6.04	27.64	7.11	20.82	7.10

Note: The color difference formula L\*a\*b\* was used.

## Test Result of University of Minnesota

#### **1.** Reasons for participating in the test

Reason	Number	ratio
Environmentally oriented	24	92%
inquisitiveness	17	65%
Provision of free products	9	35%
Others	4	15%

#### 2. Comparison of cleaning ability between clean power and detergent

	白	カラー	激しい汚れ
More satisfying	7	11	9
Equally satisfying	5	11	4
Less satisfying	13	4	12

#### **3.** Measurement of white by reflectance

Criteria for brand new t-shirt	0.0000
Washed with water	-0.4587
Washing with clean power	-0.2166
Clean Power + 1 spoonful of detergent	-0.1566
detergent	0.0544

# 3. Comparison of washing effect

NPO organization made the washing test. Clean Power got the same point about Dirt omission with detergent.



Before washing



Washing by detergent



Washing by Clean Power

# Bactericidal effect

# Sterilization effect by active ceramic

Authoritative sterilization tests have been conducted on seven harmful bacteria and their sterilizing power has been proven.

Tests at SRL	Tests at
(First Section of the Tokyo	Mitsubishi Chemical BCL
Stock Exchange, Japan largest	(Currently Mitsubishi Chemical
inspection company)	Medience)
<ul> <li>Staphylococcus aureus</li> <li>E. coli</li> <li>E. coli 0157</li> <li>Green bladder fungus</li> <li>MRSA</li> </ul>	<ul> <li>Legionella bacteria</li> <li>Trichophyton</li> <li>Green bladder fungus</li> </ul>



# 合成洗剤を使わないから 環境にも体にも安心。

#### Specification:

CO2の削減 13.3kg/年

> Dimension: 8cm in diameter, 3cm thickness Weight: disc 53g (ceramic pellets 35g/disc) Each package contains 2 discs Usage about 700 times washing (about 2 years) Weight of clothes until about 10 kg per washing

Made in Japan

List Price (MSRP): US\$46/set