



# Y-CUBE

Bio holder for water treatment system

## PVF BIO HOLDER FOR WATER TREATMENT SYSTEM

### Y-CUBE® can solve your problem

“Y-CUBE®” is PVA sponge microorganism carrier originally developed by YUKIGAYA CHEMICAL INDUSTRY CO.,LTD., which has special unique cell-structure compare to other sponge bio carriers. PVF material features over whelming high-water amenity and high-resist abrasion with this high-spec at new sponge carrier. It will contribute to reduce total operational cost of water treatment system for both existing and new planning systems.



#### Large specific surface area

#### High-resist abrasion

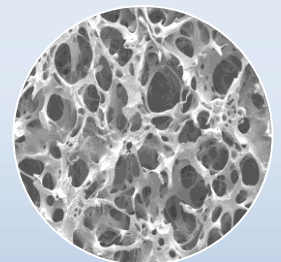
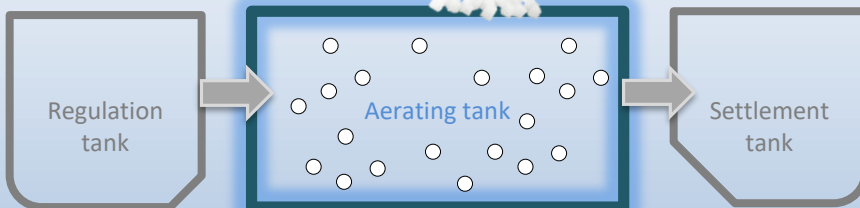
#### Fast sinking

#### Hold microorganism inside of sponge

By arranging conditions which microorganism can be activated, customer can expect lower filling fraction, reduction of aeration, and decrease frequency of maintenance. Also Y-CUBE® could be used for both purpose of aerobic and anaerobic treatment process. With this ability and capability, Y-CUBE® will contribute to save energy and cost for both public sewage and plant water treatment systems.



Filling 10%-20% of aerating tank volume



Microscope image of Y-CUBE®

※ Filling ratio is depend on conditions.



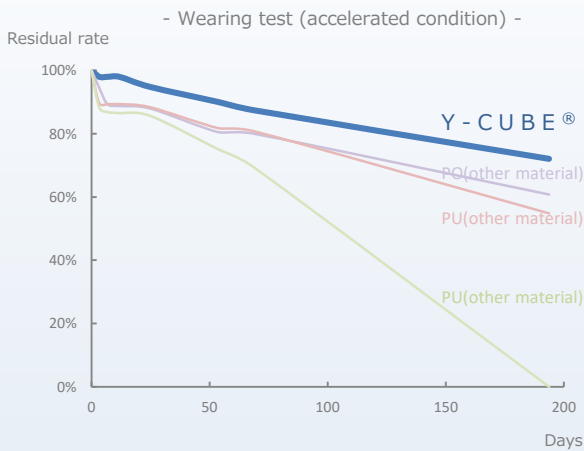
**Y-CUBE**  
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Physical data	G-2 type
Size	10 x 10 x 10 mm
Porous rate	96 %
Porous cell size	1000 μm
Material	PVF(polyvinyl formal resin)

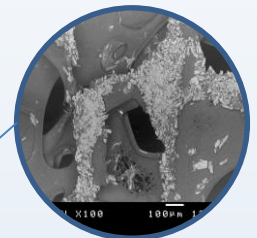
※ These aren't guaranteed values but representative values

### Resistance evaluation



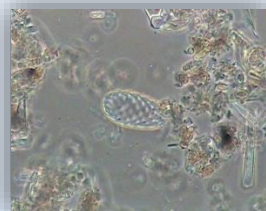
### Inside sponge evaluation

After putting in two types of bio carrier (PO and Y-CUBE®) into active sludge aeration tank for 90 days, after microorganism adhere to the sponges. Cutting the material, and observed if micro-organisms go inside of sponge or not.



Microorganism inside Y-CUBE®

### Microorganism inside Y-CUBE®



\* Photos have been taken when using Y-CUBE® onto actual sewage.

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