

GUIDE FOR STARTING AND MAINTAINING MARINE AQUARIUMS BASED ON INDIVIDUAL AQUAFOREST PRODUCTS.

# See what's new!



# **NITRAPHOS MINUS**

NitraPhos Minus is a unique formula for biological removal of excess nitrite, nitrate and phosphate from a marine aquarium. By maintaining a biological balance, it prevents the development of undesirable green algae, hair algae and cyanobacteria. It supports the development of symbiotic zooxanthellae which are responsible for the growth of corals.

# **AF PROTECT DIP**

Professional solution for dipping corals. Thoroughly cleanses the surface of coral. Reduces the risk of developing many diseases, examples: tissue necrosis, coral bleaching, mycosis, AEFW or Brown Jelly Syndrome. The formula is perfect for introducing new corals into the tank and for quarantine. The dipping process ensures healthy appearance, growth and development of corals. In addition, the solution is safe for corals, contains no iodine or oxidizing compounds.





# **AF PERFECT WATER**

AF Perfect Water is used when the water is changed in a fully functioning tank or to be added to a new tank. It protects against all types of pollution and, therefore, the tank has a naturally clean environment. Perfect Water ensures proper growth and colorful corals through the use of existing microelements.

Salinity	Alk (°dKH)	Ca (mg/l)	Mg (mg/l)	K (mg/l)
34 ppt	7.3	420	1320	380

<sup>\*</sup>PARAMETERS OF AF PERFECT WATER BASED ON LABORATORY TESTS

# AQUAFOREST PRODUCTS GUIDE

GUIDE CONTAINS RECOMMENDED APPLICATION OF AOUAFOREST PRODUCTS IN 4 MAIN TYPES OF SALTWATER AOUARIUMS

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This type of aquarium features only a variety of saltwater fish species with rock only, no corals. The unique formula provides perfect basic parameters and creates ideal environment for fish.

### DOSAGE PER 100 L OF AQUARIUM WATER (27 US GAL)

WEEKLY WATER C	HANGE	FILTRATION MI	EDIA	
SEA SALT (SALINITY 30 PPT) OPTIONAL: AF PERFECT WATER	345 G 10%	LIFE BIO FIL CARBON PHOSPHATE MINUS	250 ML 100 ML 25-100 ML	
BIOLOGY SET	·UP	MACROELEMENTS		
BIO S LIFE SOURCE 1 SPOO	1 DROP DN/WEEKLY	THERE'S NO NEED		
SUPPLEMENTA <sup>.</sup>	<b>TION</b>	TESTS		
FISH V GARLIC OIL	1 DROP 1 DROP	AF TEST KIT: <b>NO</b> 3,	, PO4	

#### RECOMMENDED PARAMETERS

Salinity 30-33 ppt NO<sub>3</sub> 0-15 ppm PO<sub>4</sub> 0,00-0,10 ppm



Basic aquariums with mixed coral stocking, mostly soft corals. No SPS corals included. The formula was designed to keep water parameters on steady levels and provide ideal nutrient balance for soft and LPS corals growth and colouration.

# DOSAGE PER 100 L OF AQUARIUM WATER (27 US GAL)

WEEKLY WATER CHANGE	FILTRATION MEDIA		
REEF SALT (SALINITY 33 PPT) 390 G OPTIONAL: AF PERFECT WATER 10%	LIFE BIO FIL 250 ML CARBON 100 ML PHOSPHATE MINUS 25-100 ML		
BIOLOGY SETUP	MACROELEMENTS		
BIO S 1 DROP PRO BIO F 1 SPOON LIFE SOURCE 1 SPOON/WEEKLY	CA PLUS, MG PLUS, KH PLUS 10 ML		
TRACE ELEMENTS	SUPPLEMENTATION*		
COMPONENT A, B, C 5ML	FISH V         1 DROP           GARLIC OIL         1 DROP           RICCO FOOD         1 SPOON           AF PHYTO MIX         1 SPOON		
	FISH V         1 DROP           GARLIC OIL         1 DROP           RICCO FOOD         1 SPOON		

	RECOMMENDED	PARAME	TERS
Salinity Ca Mg KH	33-35 ppt 380-460 ppm 1180-1460 ppm 6.5-8,0 dKH	K NO3 PO4	360-400 ppm 2-10 ppm 0,01-0,08 ppm



This setup replicates ocean reef environment with less demanding hard corals, soft corals, invertebrates and variety of fish species. Reef-keeping formula was created basing on natural saltwater parameters in order to keep your mixed-reef inhabitants in an excellent condition.

#### DOSAGE PER 100 L OF AQUARIUM WATER (27 US GAL)

#### **WEEKLY WATER CHANGE** FILTRATION MEDIA REEF SALT (SALINITY 33 PPT) 390 G LIFE BIO FIL 250 ML OPTIONAL: CARBON 100 ML AF PERFECT WATER 10% PHOSPHATE MINUS 25-100 ML **BIOLOGY SETUP MACROELEMENTS** BIO S 1 DROP SHOULD BE USED TOGETHER: COMPONENT 1+2+3+ EQUAL AMOUNTS! -NP PRO 1 DROP PRO BIO S 1 DROP -OR: LIFE SOURCE 1 SPOON/WEEKLY MIX YOUR OWN PAGE 14 DEPENDS ON NO3 & PO4 LEVELS: **NITRAPHOS MINUS** TRACE ELEMENTS SUPPLEMENTATION\* FISH V 1 DROP GARLIC OIL 1 DROP MICROELEMENTS ARE INCLUDED IN AF POWER FOOD 1 SPOON COMPONENT 1+ 2+ 3+

**TESTS** 

AF TEST KIT: MG, KH, CA, NO3, PO4
OPTIONAL: MARINLAB ICP-OES

\*WE RECOMMEND TO START DOSING FOODS AND SUPPLEMENTS AT HALF OF THE RECOMMENDED DOSE (EVEN <sup>1</sup>/<sub>4</sub>) AND OBSERVING THE CORALS AND THEIR REACTIONS TO THE ADMINISTERED FOOD.

1 SPOON

1 DROP

1 DROP

1 DROP

1 DROP

#### RECOMMENDED PARAMETERS

RICCO FOOD

AF BUILD

AF ENERGY

AF VITALITY

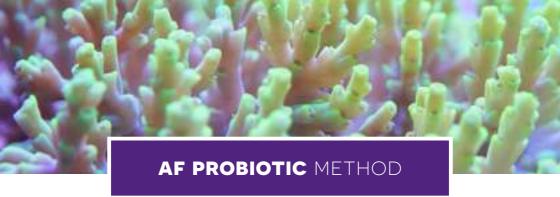
AF AMINO MIX

 Salinity
 33-35 ppt
 K
 360-400 ppm

 Ca
 380-460 ppm
 NO3
 2-5 ppm

 Mg
 1180-1460 ppm
 PO4
 0,01-0,05 ppm

 KH
 6.5-8,0 dKH
 0,01-0,05 ppm



Aquariums with the most demanding SPS corals stocking. Provides perfect environment for hard corals growth and allows keeping nitrate and phosphate at the lowest levels possible. Low nutrient levels provided by the presence of probiotic bacteria ensure perfect colouration of corals.

#### DOSAGE PER 100 L OF AQUARIUM WATER (27 US GAL)

#### **WEEKLY WATER CHANGE** FILTRATION MEDIA **PROBIOTIC LIFE BIO FIL** 250 ML REEF SALT (SALINITY 33 PPT) 390 G CARBON 100 ML **PHOSPHATE MINUS** 25-100 ML OPTIONAL: AF PERFECT WATER 10% **ZEO MIX** 100 ML **BIOLOGY SETUP MACROELEMENTS** BIO S 1 DROP SHOULD BE USED TOGETHER: COMPONENT 1+2+3+ **EQUAL AMOUNTS!** -NP PRO 1 DROP PRO BIO S 1 DROP -OR: LIFE SOURCE 1 SPOON/WEEKLY MIX YOUR OWN PAGE 14 DEPENDS ON NO3 & PO4 LEVELS: **NITRAPHOS MINUS** SUPPLEMENTATION\* TRACE ELEMENTS MICROELEMENTS ARE INCLUDED IN FISH V 1 DROP COMPONENT 1+ 2+ 3+, OPTIONALLY: GARLIC OIL 1 DROP AF POWER FOOD 1 SPOON FLUORINE, KALIUM, IRON, IODINE, STRONTIUM, MICRO E 1 DROP\* RICCO FOOD 1 SPOON AF AMINO MIX 1 DROP \*HIGHEST CONCENTRATION! DOSE CAREFULLY **AF BUILD** 1 DROP AF ENERGY 1 DROP **AF VITALITY** 1 DROP **TESTS**

\*WE RECOMMEND TO START DOSING FOODS AND SUPPLEMENTS AT HALF OF THE RECOMMENDED DOSE (EVEN ½) AND OBSERVING THE CORALS AND THEIR REACTIONS TO THE ADMINISTERED FOOD.

#### RECOMMENDED PARAMETERS

MG, KH, CA, NO3, PO4

**MARINLAB ICP-OES** 

AF TEST KIT:

**OPTIONAL:** 

Salinity 33–35 ppt K 360–400 ppm Ca 380–460 ppm NO3 0,1-0,5 ppm KH 6.5–8,0 dKH PO4 0,01-0,04 ppm

#### **BIOLOGY SETUP HINTS:**

- Bio S should be used at start-up and after water changes
- Pro Bio S (bacteria) & -NP Pro (nourishment) the set is perfect for sizeable, demanding and heavily stocked aquariums
- Pro Bio F (bacteria + nourishment) perfect for small and medium sized aquariums

#### AF PROBIOTIC METHOD COMBINED WITH OTHER METHODS:

COMBINED WITH:	ACCEPTABLE	NOT RECOMMENDED
DSB: DEEP SAND BED	$\checkmark$	
REFUGIUM	$\checkmark$	
MM: MIRACLE MUD	$\checkmark$	
VSV: VODKA, SUGAR, VINEGAR	$\checkmark$	
VODKA METHOD	$\checkmark$	
BIO PELLETS*		✓
OZONE, UV*		✓

<sup>\*</sup>Both Bio Pellets and -NP Pro/NitraPhos Minus are nourishment for probiotic bacteria, so it's not advised to use these methods combined.

It's possible to run an aquarium with Probiotic Method and use ozone and UV light at the same time, though, it significantly lowers efficiency of probiotic bacteria. Ozone and UV light kills not only harmful bacteria, but also desired ones, that we dose for nitrate and phosphate reduction hence these methods combined are less efficient.

Probiotic method guarantees keeping nitrate (NO3) and phosphate (PO4) on a low level. It is necessary to remember not to remove nitrate (NO3) completely from the water. If there is a problem with a very low level of nitrate, just increase the food dosage.

# PROBIOTIC BACTERIA PRODUCTS

Bacteria play a crucial role in aquarium filtration. As a medium you can use ceramics, dry rock, live rock or synthetic rock. As a general rule - the more porous materials the better conditions for bacteria settlement.



# **BIO S**

A specialized formula created for the quick and effective elimination of ammonia and nitrogen compounds from the aquarium. Bio S is recommended especially in the first days after setting up a new aquarium to start and accelerate the nitrification process. In mature aquariums, it accelerates the decomposition of food residues, as well as other organic compounds and sediments.

**Dosage:** 1 drop per 100 l of water every day for the first 2 weeks. In functioning aquariums, Bio S should be used after water changes.

# **PRO BIO S**

A unique composition of specially selected probiotic bacterial strains designed to accelerate the decomposition of organic matter. Pro Bio S is especially recommended for large, demanding and heavily stocked tanks. In order to keep the probiotic bacteria in good condition, we recommend using -NP Pro as a nutrient solution.

Dosage: 1 drop per 100 l of water daily.

It's good to dose Pro Bio S and -NP Pro at the same time of the day.
 Bio S is perfect not only for starting nitrification process in new aquariums, but also for replenishment of bacterial strains in matured aquariums. After maturing your aquarium, use it during water changes.





#### -NP PRO

-NP Pro is a medium for probiotic bacteria (Pro Bio S) and is designed for reef aquariums. The product contains biodegradable liquid polymers, which are an excellent source of carbon for probiotic bacteria. -NP Pro positively affects the organic mass distribution and reduces undesired NO3 and PO4 in aquarium water. Contrary to typical polymers, -NP Pro is the only formulation available on the market that does not require the use of specialized flow filters.

Dosage: 1 drop per 100 liters (27 US gal) everyday.



# **PRO BIO F**

A unique composition of freeze-dried probiotic bacteria and nourishment to facilitate their multiplication. Pro Bio F is especially recommended for small aquariums in which installing a filter with polymers is not possible or it is much more difficult. It can replace the administration of VSV or other carbon sources. The use of Pro Bio F reduces the amount of nitrate to an undetectable level, providing the coral with perfectly balanced living conditions and excellent colouring.

Dosage: 1 spoon per 100 I (27 US gal) of water daily.

# **SELECTION OF SALT**

Choosing the salt is very important and should be done according to the requirements of tank. This decision should be based on tank cast & way of managing it. In order to maintain consistent water parameters, we recommend the use of salt that has the most similar parameters to those of natural environment. We recommend that water changes are carried out every 7 days in amount of approximately 5%-10% of water volume.

Each Aquaforest salt dissolves in 15 minutes and is immediately ready to use. We recommend the use of water RO + DI (eg. Demineralization Resin)

#### **Optimal water parameters:**

 Salinity:
 33–35 ppt

 Ca:
 410–440 ppm

 Mg:
 1230–1320 ppm

 KH:
 6.5–8,0 dKH

 K:
 360–400 ppm



# Macro & micro elements in the water have different levels depending on the salinity:

#### SEA SALT:

Salinity	Alk (°dKH)	Ca (ppm)	Mg (ppm)	K (ppm)
30 ppt	7.3 – 7.6	320 – 340	1140 - 1200	330 – 350
33 ppt	7.7 – 8.0	340- 360	1200 - 1260	360 – 380
35 ppt	8.3 – 8.9	380 - 400	1260 - 1300	380 – 400

#### REEF SALT:

Salinity	Alk (°dKH)	Ca (ppm)	Mg (ppm)	K (ppm)
30 ppt	7.0 – 7.3	370 – 380	1200 - 1260	330 – 350
33 ppt	7.3 – 7.7	410 - 430	1300 - 1360	360 – 380
35 ppt	7.7 – 8.3	440 - 460	1360 - 1420	380 - 400

#### PROBIOTIC REEF SALT:

Salinity	Alk (°dKH)	Ca (ppm)	Mg (ppm)	K (ppm)
30 ppt	7.0 - 7.3	370 - 380	1200 - 1260	330 - 350
33 ppt	7.3 – 7.7	410 - 430	1300 - 1360	360 – 380
35 ppt	7.7 – 8.3	440 - 460	1360 - 1420	380 - 400



# **ABOUT ICP-OES CERTIFIED QUALITY SALTS**

Aquaforest products are manufactured in the EU under strict laboratory supervision to meet the highest quality standards. Each product is prepared from carefully selected raw components in quantities proven to yield consistent composition.

#### HOW IS OUR MARINE SALT PRODUCT RANGE TESTED?

We mix our Marine Salt in 1 metric tonne (2204 lb) batches and 3 separate samples per batch are collected during the production stage for testing. Each of these samples is dissolved in 15 litres (4 US gal) of RO water. Our experienced team of professionals performs ICP-OES analysis to verify that the chemical composition is within consistent range and to rule out the presence of unwanted contaminants at the same time. Note: Even though our salt is thoroughly mixed, not every bucket/box will be identical. The parameters may vary slightly between containers and around a 2-3% variation is acceptable. This fluctuation is a result of both physical properties of the mix and the limitations of the processing techniques available. These variations are still smaller than the typical margin for error for popular hobbyist test kits.



- HOW TO IDENTIFY THE BATCH NUMBER OF MY AQUAFOREST SALT?
   Labels displaying Batch numbers are present in 2 locations:
  - 1. On the outside of the bucket or cardboard box
  - 2. Inside the packaging (e.g. on the inside of the bucket lid or cardboard box)
- WHERE CAN I FIND THE PARAMETERS OF MY AQUAFOREST SALT?
   You can check the ICP-OES report from your batch here: www.aquaforest.eu/icp-oes-results.

#### SOMETIMES MY HOME TESTS SHOW DIFFERENT PARAMETERS TO THOSE STATED ON THE LABEL. WHY?

There are no hobbyist test kits available on the market that are able to measure small discrepancies with 100% accuracy. Variations of parameters are typically still smaller than the acceptable error of the test kits available and therefore there is little chance of a negative impact on aquarium life.

#### • HOW TO PREPARE SALT FOR TESTING?

We recommend preparing at least 15 litres (4 US gal) of saltwater. Mix your RO water with 585 g (20.63 oz) of salt and perform the test at least 2 hours after fully dissolved. Always check the salinity in which the test was made, as this will influence the measured parameters. A salinity refractometer is recommended, together with a calibration fluid. \*Note that salinity readings also depend on the temperature. Please check your salinity at  $20^{\circ}$ C (68°F). If you detect a small difference in parameters between your tank and the salt, the impact is also minor. For example if you make the typical recommended 10% water change, the change in parameters of your tank will only be 10% of the difference. If the Calcium level in your aquarium is 430 ppm and the water change water is 450 ppm, the difference is 20 ppm. But as you are actually only changing 10% of aquarium volume, 10% of that 20 ppm is only 2 ppm. Changing water this way, with that discrepancy, would only result in a difference of 2 ppm of Calcium. That's 0.5%.

E.g. Tank Ca = 430 ppm. New salt water Ca=450 ppm. The difference: 450-430=20 ppm. Estimated impact: 10% \*20 = 2. Tank Ca after change will be 432 ppm



# **SEA SALT**

Fully synthetic marine salt created for fish tanks, less demanding corals and invertebrates. Phosphate and nitrate free, Upon filling new marine tanks it is recommended not to let animals in for 10-14 days. For salinity of 30 ppt dissolve about 345 g (12.16 oz)/10 l (2.7 US gal) of water.







# REEF SALT

Designed for aquariums with more demanding SPS and LPS corals. This salt can be used with ozone-assisted filtration. Also, it does not contain any probiotic bacteria or growth media. Phosphate and nitrate free. Upon filling new marine tanks it is recommended to let animals in not earlier that after 10-14 days. For salinity of 33 ppt dissolve about 390 g (13.75 oz)/10 l (2.7 US gal) of water.













It's s good idea to roll the bucket with all salts after shipping they can settle by grain size.

Once dissolved Reef Salt and Sea salt should be used the salt within 5 days. Due to bacteria presence, Probiotic Reef Salt should be used within 24 hours.



# PROBIOTIC REEF SALT

Fully synthetic marine salt created for coral culture, especially SPS. Composition is destined to create the best conditions for marine animals. The micronutrients and macronutrients contained fully satisfy the amount of elements required for proper growth and colorization of corals. Addition of Reef Probiotic Inside the formula guarantees good influence on reduction of nitrates, phosphates, and also inhibits pathogenic bacteria in marine aquarium. Freshly prepared marine water, after dissolution of salt, can be used immediately for water exchange. When setting up new aquariums, the first animals are recommended to be placed no sooner than 10-14 days from filling the aguarium. For salinity of 33 ppt dissolve about 390 g (13.75 oz)/10 l (2.7 US gal) of water.















# SUPPLEMENTATION

Aquaforest recommends to change 5-10% of the water weekly. It is always a good practice to perform tests (Ca, KH, Mg, K) during this process and supplement calcium, KH or magnesium when a drop is observed. In the initial phase of the marine aquarium development the microelements contained in the Components Strong are not required. You should consider Micronutrient supplementation when the aquarium is fully inhabited with corals.

To make micronutrient selection easier- Aquaforest created Component 1+ 2+ 3+. These ready mixed macro and micronutrient solutions fully meet the corals requirements, guarantee healthy growth and beautiful coloration. The dosage of Component 1+ 2+ 3+ formulas depends on macro and micronutrient levels of consumption by corals, as well as on water parameters. The microelements that are included in Components Strong may also be dosed separately (Iron, Fluorine, Kalium, Micro E, Strontium, Iodum), but we only recommend this approach to experienced aquarists. For tanks with Calcium reactor Components A, B, C are more suitable.

#### **SUPPLEMENTATION HINTS:**







Component 1+2+3+ is based on the Balling Method. This method is used to maintain Ca, Mg, Alk and Trace Elements. The biggest difference between 2 part dosing and 3 part/Balling is that Balling uses NaCl free salt (AF Reef Mineral Salt). This salt keeps the ionic balance in your tank water, which is how you can find it in natural seawater.

#### So why must we dose this components in equal amounts?

Component 1+ contains Calcium Chloride + Sr, Ba, Co, Mn, Cu, Fe, Zn, Ni, Cr Component 2+ contains Sodium Bicarbonate + F, I

Component 3+ contains Magnesium chloride and NaCl free salt + K, B



The Calcium from Component 1+ binds with the Carbonate from Component 2+ creating Calcium Carbonate which is what corals are made of/need to grow. Then we have Sodium and Chloride making Sodium Chloride and the more we are dosing, the more Sodium Chloride we have in our water. This is when the NaCl free salt from Component 3+ comes into play, binding with it and maintaining the ionic balance. When the dosing is not being done in same amounts then ions are not binding properly with each other and true Balling Method is not in place.

#### So how do we start dosing Component 1+2+3+?

First STOP ALL dosing of Calcium, Magnesium and Alkalinity. Then for a few days test these parameters at around the same time every day.

So the results are telling us that the daily consumption of alkalinity is 0.3. **You can go to the AF Calculator (aquaforest.eu/afcalcen)** this shows that you should dose 12 ml to raise Alkalinity by 0.3. Now I would start with 1/4 or 1/2 of the dose. Test your water constantly, increase the dosing slowly until your parameters stay balanced.

EXAMPLE OF DAILY CONSUMPTION IN 100 L (27 US GAL) TANK: Day 1 dKH 9.0 Day 2 dKH 8.7 Day 3 dKH 8.4

Day 4 dKH 8.1

Day 5 dKH 7.8

What is the best time to dose Components 1+ 2+ 3+? Split it into as many doses at it is possible during 24 hours. Some aquarists, owning auto monitoring KH tools found that corals consume more KH while they are lit. From our experience, small doses during 24 hours period work best.

**During preparing Component 1+, after a day or so I often get a brown residue on the bottom of the container. Is it ok?** Brown residue is the excess of iron, there's no need to remove it from the container.

#### What's the difference between KH Buffer and KH Plus?

KH Buffer is powdered while KH Plus is ready to use fluid.

Can I dilute your Calcium, KH Buffer and Magnesium with less water in order to make stronger solution? If yes, what is the limit? The reason is my tank doesn't evaporate much, and if I use your recommended dosage, I will add much water to my tank. Yes, it's possible to make stronger solutions of Calcium and Magnesium. In order to keep it safe, we recommend preparing doses maxiumum 2 or 3 times stronger. Solution of higher concentration may clog the pump. KH Buffer is a saturated solution, therefore you can't get higher concentration.

**Should I dose Component 1+ 2+ 3+ while using calcium reactor?** No, if you run a calcium reactor, it means you have a different source of macronutrients. If you use Component 1+ 2+ 3+ simultaneously, you'll simply double the dose. Component A, B, C are perfect as a microelements source for calcium reactors. Dosage depends and should be established on calcium consumption.



#### COMPONENT 1+ RECIPE

1 I RODI WATER 50 g CALCIUM 5 ml STRONG A 5 ml STRONG B

100 ML RAISES THE CALCIUM LEVEL IN 100 L OF WATER BY 17.5 PPM

#### COMPONENT 2+ RECIPE

1 | RODI WATER 80 g KH BUFFER 5 ml STRONG C

100 ML RAISES KH LEVEL IN 100 L OF WATER BY 2,6 DKH

#### COMPONENT 3+ RECIPE

1 | RODI WATER
10 g MAGNESIUM
25 g REEF MINERAL SALT
5 ml STRONG K

100 ML IN 100 L OF WATER RAISES MAGNESIUM LEVEL BY 1,2 PPM

# **COMPONENTS STRONG**

We recommend to use Components strong with Aquaforest Calcium, Magnesium, KH Buffer & Reef Mineral Salt.

#### STRONG A

Contains concentrated strontium and barium. Strontium supports hard corals in development of skeletal tissue and significantly improves calcium absorption and growth of soft corals. The strontium level in reef aquarium should be around 5 to 15 ppm. 5 ml of Strong A should be added to 1 l of Calcium solution.



#### STRONG B

Contains concentrated heavy metals which are necessary for correct biological processes of the aquarium inhabitants. Supplements water with elements naturally existing in seawater. 5 ml of Strong B should be added to 1 l of Calcium solution.

#### STRONG C

Contains concentrated iodine and fluorine. Iodine intensifies dark blue and purple colouration of hard corals and its proper level in sea water supports shrimp molting. Fluorine takes part in calcification process and supports development of the skeletal tissue. Recommended levels of both elements in the reef aquarium are: iodine approx. 0.06 ppm and fluorine approx. 13 ppm. 5 ml of Strong C should be added to 1 lof KH Buffer solution.

#### **STRONG K**

Contains concentrated potassium. Potassium plays an important role in metabolic processes of corals, takes part in transportation of nutrients and boosts red and pink colouration of SPS corals. Recommended potassium level in reef aquarium is 360-380 mg/l (ppm). 5 ml of Strong K should be added to 1 l of Reef Mineral Salt + Magnesium.



#### **CALCIUM**

Essential for proper coral development. Easy to dose.

Calcium and Magnesium can be combined into one solution. Dissolves fast.

#### Dosage

Dissolve 50 g of Calcium in 1000 ml RODI water. 100 ml of Calcium solution raises the calcium level in 100 l of water by 17.5 mg/l (ppm). 10 g of Calcium in 100 l of water raises the calcium level by about 35 mg/l (ppm).

Recommended level: 380-460 ppm



#### **MAGNESIUM**

Essential for proper coral development. Easy to dose.
Calcium and Magnesium can be combined into one solution. Dissolves fast.

#### Dosage

Dissolve 10 g in 1000 ml RODI water. 100 ml of Magnesium solution in 100 l of water raises Magnesium level by 1,2 mg/l (ppm). 10 g of Magnesium in 100 l of water raises the magnesium level by 12 mg/l (ppm).

Recommended level: 1180-1460 ppm



#### KH BUFFER

Maintains constant carbonate hardness level. Easy to dose. Stabilizes parameters Crucial for corals health.

#### Dosage

Dissolve 80 g of KH Buffer in 1000 ml RODI water. 20 ml of KH Buffer solution raises KH level in 100 l of water by  $0.5^{\circ}$  dKH. 10 g of KH Buffer in 100 l of water raises KH level by about  $3.3^{\circ}$  dKH (Alk. 1.18 meg/l).

Recommended level: 6.5°-8.0°dKH.



# **REEF MINERAL SALT**

Maintains ionic balance. Prevents mineral deficiencies. Crucial during calcium chloride and sodium bicarbonate dosage.

#### Dosage

Dissolve 25 g in 1000 ml RODI water. Solution of Reef Mineral Salt should be dosed at the same amount as Calcium and KH Buffer.

#### Good to know

Water changes are still necessary during Reef Mineral Salt supplementation.



- Component A, B, C may be administered in aquariums run on Balling method with the dosage of 20 ml/1 I Balling solution.
- Though trace elements supplementation is important to get astonishing colouring of corals, overdosing may be dangerous to the tank. That's why we prepared products of different concentrations, so that your reef is always safe with us: (lowest concentration)
   Component A, B, C < Components Strong < Fluorine, Iodine, Strontium, Micro E (highest concentration)



#### **CA PLUS**

Ca Plus was created for maintaining shortages and sudden drops of calcium levels. Due to its very assimilable form it ensures easy raising of calcium levels in the aquarium. The effectiveness of Ca Plus supplementation depends on the proper KH level, therefore it is recommended to use products that raise carbonate hardness (KH Plus or KH Buffer).

**Dosage:** 10 ml of Ca Plus raises the calcium level by 15 mg/l (ppm) in 100 l (27 US gal) of water. Maximum daily dose is 20 ml of Ca Plus per 100 l (27 US gal) of water. Recommended calcium level in reef aquarium is 380-460 mg/l (ppm).



#### **Mg Plus**

Mg Plus is created for managing shortages and sudden drops of magnesium levels. Magnesium is necessary for healthy and balanced growth of corals. The appropriate level of magnesium in the tank water provides corals better absorption of calcium. A reduced level of magnesium may cause an inability to maintain proper calcium levels and a lowered nH

**Dosage:** 10 ml of Mg Plus solution raises magnesium level by 7.5 mg/l (ppm) in 100 l (27 US gal) of water. We do not recommend raising magnesium levels by more than 100 ppm a day. The recommended magnesium level in reef aquariums is 1180-1460 mg/l (ppm).



#### **KH PLUS**

KH Plus was created for maintaining sudden carbonate hardness drops and restoring the ionic balance in the aquarium. The proper value of carbonate ions is necessary for healthy coral growth and for building skeletons. Due to the presence of carbonate ions, maintaining stable pH level is possible.

**Dosage:** 10 ml of KH Plus solution raises carbonate hardness by 0.25°dKH in 100 l (27 US gal) of water. Maximum daily dose is 20 ml for 100 l (27 US gal) of water. Do not raise dKH more than 1.0° dKH per 24 hours. Carbonate hardness in a reef aquarium should be about 6.5°-8.0°dKH



Improve colour of your corals using following concentrated microelements:



# **COMPONENT A**

The unique formula was created based on the same strontium and barium ratio as natural seawater. **Dosage:** in mixed reef aquariums 5 ml per 100 l of water once a week. The dose can also be adjusted to the calcium consumption – 1 ml for every 20 ppm/100 l of water. In aquariums run with Balling method – 20 ml/1 l Calcium solution. When using Components A, B, C a 5-minute time interval should be kept between each dose.

# **COMPONENT B**

Component B is designed for complementing minor deficiencies of heavy metals in a marine aquarium. Contains: cobalt, copper, chrome, manganese, vanadium, zinc, nickel, iron. **Dosage:** in mixed reef aquariums 5 ml per  $100\,l$  of water once a week. The dose can also be adjusted to the calcium consumption – 1 ml for every  $20\,ppm/100\,l$  of water. In aquariums run with Balling method –  $20\,ml/1\,l$  Calcium solution. When using Components A, B, C a 5-minute time interval should be kept between each dose.

# **COMPONENT C**

Component C is designed for complementing minor deficiencies of iodine and fluorine in a marine aquarium. **Dosage:** in mixed-reef aquariums 5 ml per 100 l of water once a week. The dose can also be adjusted to the calcium consumption - 1 ml for every 20 ppm/100 l of water. In aquariums run with Balling method - 20 ml/1 l KH Buffer solution. When using Components A. B. C a 5-minute time interval should be kept between each dose.

# SUPPLEMENTS & CORAL FOODS

Corals are affected not only by parameters of the water, but also by the nutrients provided to them in various supplements. Those contained in food, increase their vitality, accelerate growth and improve colours. In the system with an efficient protein skimmer there is always a big drop in the level of vitamins and amino acids necessary for proper corals development. For this reason, we recommend regular use of supplements to keep appropriate levels in the aquarium.

- Note that corals need time to adjust to the environment and new supplements, so it's important to observe the
  aquarium and introduce changes slowly.
- Start dosing foods and supplements from half of the dose (even ¼), that's how you avoid overdosing.
- SPS and LPS corals should be fed after the light is out.
- Zoanthus, Ricordea and other mushroom corals should be fed during the day.
- During the feeding we recommend switching off the skimmer for about an hour.





#### **AF BUILD**

Perfect for hard corals. Fast growth & healthy development. Boosts skeleton building process. Reduces growth of undesired algae.

#### Dosage

1 drop per 100 l (27 US gal) of water every other day after lights out.

#### Good to know

AF Build should be used during intensive coral feeding, especially when using AF Energy. Once opened store in the fridge, if the temperature exceeds 24°C.



# **AF ENERGY**

Highly concentrated & easy to dose. Contains Omega-3 and Omega-6 acids. Boosts pastel coloration. Safe copper sulfate content.

#### Dosage

1 drop per 100 l (27 US gal) of water every other day after lights out.

#### Good to know

Switching off the skimmer for an hour during feeding is a good practice. Due to the natural composition of the product, its color may vary. Once opened store in the fridge, if the temperature exceeds 24°C.



# **АF РНУ**ТО **МІХ**

Ideal for gorgonias and soft & nonphosynthetic corals. Perfectly balanced mix of phytoplankton & zooplankton. Ensures intense growth & vivid colors. Highly absorbable and protein rich.

#### Dosage

10 drops per 100 liters (27 US gal) of water every other day after lights out.

#### Good to know

The use of ozonators, active carbon cartridges and strong skimmers can lead to sterilization of water and, as a result, to vitamin deficiencies. Once opened store in the fridge, if the temperature exceeds 24°C.



# **AF VITALITY**

Highly concentrated vitamin mix. Efficient & easy to dose. Completes deficiencies. Provides all the necessary vitamins. Boosts coloration.

#### Dosage

1 drop per 100 liters (27 US gal) of water every other day after lights out.

#### Good to know

The use of ozonators, active carbon cartridges and strong skimmers can lead to sterilization of water and, as a result, to vitamin deficiencies. Once opened store in the fridge, if the temperature exceeds  $24^{\circ}\text{C}$ .



# **AF AMINO MIX**

Contains all the necessary amino acids. Boosts colors. Improves the quality of photosynthesis. Supports growth. Improves immunity.

#### Dosage

1 drop per 100 l (27 US gal) of water every other day after lights out.

#### Good to know

AF Amino Mix completes water with all the necessary amino acids, thus prevents corals from bleaching and boosts their colors. Once opened store in the fridge, if the temperature exceeds 24°C.



# AF LIFE SOURCE

AF Life Source is a 100% natural deposit derived from the cleanest waters of the Pacific. It is perfect as a buffer to enhance microbiology in saltwater aquariums. Biological stabilization is crucial for corals. Usage of AF Life Source provides corals access to components and minerals derived from the natural environment. The product is also an excellent complement of an algae refugium and DSB. We recommend dosage at least once a week, adding 10 ml/1001 (27 US gal) of water. To ensure that corals permanent access to the minerals dose in a high flow water, it contains valuable minerals and nutrients are permanently released into the aquarium.



# **AF POWER FOOD**

Perfect for SPS corals. Ensures perfect coloration & quick growth Highly nutritious. Shellfish additives for healthy growth.

#### Dosage

1 measuring spoon per 100 l (27 US gal) of water.

#### Good to know

Sunday

In order to facilitate the food absorption, SPS and LPS corals should be fed after the light is out. You can feed selected corals with a pipette or dose the suspension directly into the tank.

# Monday AF AMINO MIX, AF VITALITY Tuesday AF ENERGY, AF BUILD, AF POWER FOOD Wednesday AF AMINO MIX, AF VITALITY, RICCO FOOD Thursday AF ENERGY, AF BUILD, AF GROWTH BOOST Friday AF AMINO MIX, AF VITALITY, AF PURE FOOD Saturday AF ENERGY, AF BUILD, AF LPS FOOD



#### **AF GROWTH BOOST**

Perfect for all corals. Improves polyp extension. Enhances metabolism. Accelerates calcification process.

**BREAK** 

#### Dosage

1 measuring spoon per 100 I (27 US gal) of water.

#### Good to know

It's important to adjust the doses to your coral cast and individual tank needs.

# **AF PURE FOOD**

100% natural food. Calcium carbonate content eases caclification. Derived from corals natural habitat. Stabilizes pH level.

#### Dosage

1 measuring spoon per 100 l (27 US gal) of water.

#### Good to know

Use at least once a week.



#### RICCO FOOD

Natural plant mixture. Efficient and easy to prepare. Unique vitamin blend. Improves coloration and speeds up growth. Meets all the needs of Zoanthuses and mushroom corals.

#### Dosage

1 measuring spoon per 100 l (27 US gal) of water.

#### Good to know

Corals such as Zoanthus, Ricordea and other mushroom corals should be fed during the day.



# **AF LPS FOOD**

Dedicated to LPS corals. Specially selected nutritional blend. Guarantees healthy growth. Rich in protein and fatty acids.

#### Dosage

1 measuring spoon per 100 l (27 US gal) of water.

#### Good to know

The product does not cause water turbidity.



# Use one of our supplements to keep your fish in excellent condition:



# FISH V

Unique set of most important vitamins. Boosts fish immune system. Supports tissue regeneration. Perfect with frozen foods.

#### Dosage

1 drop per cube of frozen food or directly into water 1 drop per 100 liters (27 US gal) of water.

#### Good to know

Fish V contains vitamins A, B1, B2, B6, B12, C, D3, E, K3 and biotin, alanine, choline, cysteine, glutamine, leucine, lysine, serine and tyrosine.



#### **GARLIC OIL**

Efficient garlic extract. Vitamins & Omega-3 composition. Effective against viruses & parasites. Recommended during treatment and quarantine.

**Dosage:** 1 drop per portion of food. 2-3 times a week.

# **FOOD FOR FISH**



Product group designed for demanding aquarists who value the health and beauty of fish. Our perfectly balanced food is available in the form of sinking granules, clips and liquid. Different sizes of pellets make it easy to adjust the feed to the size of the fish you have. Regular use of our food keeps the fauna of your tank in perfect condition. A diet full of Omega-3 acids, algae & crustaceans.



# AF ALGAE FEED S/M

Excellent pellet feed dedicated for ornamental herbivorous fish, especially tangs. It ensures proper growth and immunity. AF Algae Feed is a selection of 7 algae varieties. In addition, it has been enriched with phytoplankton, minerals and vitamins to create a complete balanced diet for all types of fish.



#### **AF CALANIDAE CLIP**

Highly nutritious feed for all ornamental small fish. Contains Calanus finmarchicus, which is rich in amino acids. Thanks to the high levels of EPA, DHA, SDA and algae fatty acids, it is an excellent supplement for all marine fish. The feed is placed on a clip that can be hung in any part of the aquarium giving the fish the freedom to swim and eat freely. AF Calanidae Clip is the perfect solution for fish that must get used to dry feed e.g. Synchiropus splendidus (Mandarinfish), Chelmon rostratus (Copperband butterflyfish).



# AF VEGE CLIP

Nutritional feed intended for herbivorous ornamental fish. In order to provide healthy growth and immunity, AF Vege Clip is made of 7 algae varieties and enriched with phytoplankton, minerals and vitamins to create a completely balanced diet for all types of fish. The feed is placed on the clip so that it can be hung in any part of the aquarium giving the fish the freedom to swim and eat freely.



# **AF MARINE MIX S/L**

Granulated feed recommended for carnivorous ornamental fish, especially Amphiprion (Clownfish/Anemonefish). High protein content of AF Marine Mix provides fish with all the necessary nutrients guaranteeing proper growth and excellent condition. With AF Marine Mix S and L you can also successfully feed your corals.



# **ANTHIAS PRO FEED S/L**

Feed for ornamental fish dedicated especially for Anthias and other carnivorous fish. Mysis Relicta and Calanus are considered as one of the most complete nutrients for all fish, due to its high content of Omega-3. EPA, DHA and amino acids, it promotes proper growth and supports immune system. With AF Anthias Pro Feed you can also successfully feed your corals.



# **AF COLOR UP**

Pellet feed for large ornamental fish. Thanks to the high content of vitamins. proteins and carotenoids, it significantly improves fish coloration.



# **AF OMEGA KRILL**

Carbohydrate granulated feed with high content of marine krill. AF Omega Krill is rich in proteins and fats of plant and animal origin. It is a highly nutritious feed and works great as a basic feed for everyday use.



# **AF PROTEIN POWER**

Feed designed for young ornamental fish. Stimulates fish growth and strengthens their immunity. In addition, thanks to spirulina content, it intensifies colouration. Rich in proteins, it will provide voung fish with a wonderful form, high resistance to infection and the proper development of internal organs.



# **AF TINY FISH FEED**

Perfectly balanced feed for small ornamental fish. Rich in protein and fats meets all the nutritional needs of fish providing proper growth and coloration. AF Tiny Fish feed is very well absorbed by fish and other aguarium animals.



# **AF PLANKTON FLIXIP**

Liquid feed for ornamental fish, corals and invertebrates. Due to the high content of saturated Omega-3, EPA, DHA and SDA fatty acids, astaxanthin and carotenoids, it has a great impact on the correct growth of fish and invertebrates, giving them beautiful coloration. It strengthens resistance to stress, disease, facilitates proper molt of shrimp and other invertebrates.



# **AF VEGE STRENGTH**

Easily digestible plant feed for large herbivorous ornamental fish. The high fiber content regulates the digestive tract, protecting the intestines of herbivores fish against inflammation. AF Vege Strength, thanks to the content of spirulina, will enhance the coloration of fish





The highest accuracy test kits play an important role in daily control of marine aquarium parameters. Chemists developed Aquaforest drop tests, that are easy to use, efficient and can be done at home. Readings provided by these tests can be a perfect indicator for micro and macroelements supplementation and establishing correct water parameters in your aquarium. Remember, that stable water chemistry is the key to your corals well-being and growth.

#### RECOMMENDED PARAMETERS

Alkalinity:  $6.5 - 8.0 \, dKH$ Nitrate: 2 - 5 ppm 380 - 400 ppmPhosphate: 0 - 0.02 ppm Calcium:

Magnesium: 1180 - 1460 ppm

# TEST KIT: ALKALINITY

Aquaforest TestPro KH is designed to quickly measure carbonate hardness in the marine aquariums. In order to ensure the proper functioning of the marine aquarium, alkalinity should vary between 6.5-8.0 dKH for Ultra Low Nutrient Systems (ULNS). Higher values are permissible for aquariums with higher nutrients. The set contains enough reagents to perform 78-100 determinations of carbonate hardness.



# TEST KIT: CALCIUM

Aquaforest Test kit Calcium is designed to quickly measure the calcium content in the marine aquarium, freshwater aquarium, Ponds or water reservoirs. In order to ensure the proper functioning of the marine aquarium calcium levels should be maintained in the range 380-460 mg / I (ppm). The test kit contains sufficient reagents for 55-60 calcium tests determinations of the required concentration of calcium.



# **TEST KIT: MAGNESIUM**

Test Aquaforest Mg is designed to quickly measure the magnesium content in the marine aquarium. In order to ensure the proper functioning of the marine aquarium magnesium concentrations should be maintained within the limits of 1180-1460 mg/l (ppm). The test kit contains sufficient reagents for 55-60 magnesium tests determinations of the required concentration of magnesium.



# TEST KIT: NITRATE

Aquaforest TestPro NO3 is designed for quick measurement of nitrate ions in marine aquariums. Nitrate in water is the end result of biological filtration. High concentrations of nitrate cause the growth of undesirable algae. Nitrate levels in reef aguariums should be 2-5 mg/l (ppm). This test kit contains sufficient reagents to perform

40 tests of nitrate concentration.

# TEST KIT: PHOSPHATE

Aquaforest TestPro PO4 is designed for quick measurement of phosphate ions in marine aquariums. Phosphate is a breeding ground for the growth of undesired algae, so it is very important to constantly monitor its concentration in marine tanks. In addition, high concentration of phosphate may be harmful to corals. Phosphate levels in the marine aquarium should not exceed 0.02 mg/l (ppm). The Test Kit contains sufficient reagents to perform 40 tests of phosphate concentration.



# FILTRATION MEDIA

The next important element of the filtration system when using the probiotic method is the application of efficient protein skimming. When set to 'dry' skimming it helps to keep nitrate and phosphate at a low level and reduce the excess of multiplied bacteria. We also recommend using a phosphate reactor with suitable adsorber. It should not act as a main filtration system in this method and must be disconnected once phosphate get desired levels. Please also note that refills based on alumina must not be used.





# CARBON

High quality activated granular carbon. Activated by steam it doesn't contain any phosphate. **Dosage**: 100 ml per 100 l of aquarium water. Rinse with RODI water before use. The recommended water flow is 500 l/h.





## PHOSPHATE MINUS

Efficient medium for fluidization filters. Its adsorbing capabilities allow bonding large amounts of phosphate without negative influence on the aquarium inhabitants. Do not rinse before use, brown dust is an active phosphate remover and is completely harmless for the aquatic life. Brown colouration of water will disappear after a short time. Rinsing the product in a RODI water will lower its efficiency. **Dosage:** 25-100 ml per 100 l (27 US gal) of water.





# **ZEO MIX**

Specially selected blend of zeolites particularly recommended in tanks with plentiful livestock and/or ULNS tanks. **Dosage:** 100 ml per 100 l of water in the aquarium. Rinse with RODI water before use. It can be used in a media reactor as well as in a filter mesh bag or sock. Zeolites do not require shaking – they can be placed in a fluidised filter. The recommended flow through the bed is 300-500 l/h. Zeo Mix should be replaced every 6 weeks. Zeo Mix does not lower the potassium level in the water. Because of very high adsorption capabilities of zeolites, Zeo Mix should only be used in reef tank by experienced aquarists.





#### LIFE BIO FIL

Life Bio Fil is a natural biological filtration media. Due to carefully selected bacterial strains it initiates and supports the nitrification process which accelerates maturation. Life Bio Fil is a perfect filtration media for newly established tanks. Life Bio Fil will also increase efficiency of filtration in older and already functioning tanks. Due to the content of bacteria it starts the nitrification process almost immediately – there's no need to wait for the settlement of the medium. Life Bio Fil should be placed in the sump with good water flow. 1000 ml of medium should be used in an aquarium with a capacity of 400 l. We recommend replacing 10 -20 % of Life Bio Fil every 6 weeks.

- Filtration media are the most effective while using media reactors.
- There's no need to shake Zeo Mix.



# **AQUAFOREST MEDIA REACTORS**

Group of fluidising reactors, intended for use with different types of filter media. They work perfectly as reactors for phosphate absorbers, activated carbon and zeolites. Due to the compact dimensions, they can be used both internally in the sump or externally. The reactors are made entirely from high quality acrylic, making it resistant to damages and discolouration. Silicone seal protects the filter against

leakage. Inside the filter there are sponges with a special fixture to prevent deformation of the internal sponge.

We recommend the use of 3 Aquaforest media:

Zeo Mix, Carbon and Phosphate Minus combined.





# AF90

Diameter pipe: 90 mm
Connections: 16 mm
Accommodates up to: 1.6 I (3.38 US pt)





# **AF110**

Diameter pipe: 110 mm
Connections: 20 mm
Accommodates up to: 3 | (6.34 US pt)





# **AF150**

Diameter pipe: 150 mm
Connections: 20 mm
Accommodates up to: 7.2 I (1.91 US gal)





# **DOSAGE OF AQUAFOREST PRODUCTS**

PROBIOTIC REEF SALT	Fully synthetic marine salt for SPS and LPS Corals	000 4075 \4016710	
	(probiotic inside)	390 g (13.75 oz)/10 l (2.7 US gal) to 33 ppt	
REEF SALT	Fully synthetic marine salt for SPS and LPS Corals	390 g (13.75 oz)/10 l (2.7 US gal) to 33 ppt	
SEA SALT	Fully synthetic marine salt created for fish tanks	345 g (12.16 oz)/10 l (2.7 US gal) to 30 ppt	
PROBIOTICS & NIT	RIFICATION		
Bio S	Nitrifying bacteria for Start-Up & ammonia reduction	1 drop per 100 l (27 US gal)	4
PRO BIO F	Probiotic bacteria with culture medium for $\mathrm{NO_3}\mathrm{PO_4}$ reduction	1 measuring spoon per 100 l (27 US gal)	
PRO BIO S	Probiotic bacteria for NO <sub>3</sub> PO <sub>4</sub> reduction	1 drop per 100 l (27 US gal)	* 4
-NP Pro	Liquid Polymer - Media for a growth of probiotic bacteria	1 drop per 100 l (27 US gal)	4
NITRA PHOS MINUS	Effectively removes excess nitrate & phosphate from the water, restores chemical balance	Depends on NO3 and PO4 levels	
SUPPLEMENTS & F	oods		
АҒ Аміно Міх	Aminoacids - energy source for corals	1 drop per 100 l (27 US gal)	*
AF Build	Growth acceleration	1 drop per 100 l (27 US gal)	* 4
AF ENERGY	Highly nutritious food for corals	1 drop per 100 l (27 US gal)	* 4
AF VITALITY	Vitamins for vitality & health	1 drop per 100 l (27 US gal)	*
AF Рнуто Міх	Liquid feed	10 drops per 100 l (27 US gal)	*
AF POWER FOOD	Powdered feed for sps and lps corals	1 measuring spoon per 100 l (27 US gal)	
RICCO FOOD	Powdered feed for corals of the Ricordea family	1 measuring spoon per 100 l (27 US gal)	
GARLIC OIL	Vitamins Omega-3 acid garlic extract	1 drop per food cube	
FISH V	Vitamins for fish vitality & health	1 drop per food cube	*
AF PURE FOOD	100% natural food for the coral, which supports the calcification of calcium thus ensures proper development and growth	1 measuring spoon per 100 l (27 US gal)	
AF LPS FOOD	Granular food dedicated especially for LPS corals	1 measuring spoon per 100 l (27 US gal)	
AF GROWTH BOOST	Supplement for all types of coral. It contains high quality amino acids	1 measuring spoon per 100 l (27 US gal)	
PELLETS FOR FISH	All foods for fish	Small portions once or several times a day	
AF LIFE SOURE	100% natural deposit derived from the cleanest waters of the Pacific It is perfect as a buffer to enhance microbiology in saltwater aquariums	We recommend that you use it a minimum of once a week, adding 10 ml/100 l (27 US g	al)
MICROELEMENTS			
ОДИМ	Supplement for blue and purple colour enhancement	1 drop per 100 l (27 US gal)	
STRONTIUM	Supplement for skeletal strength and branching	1 drop per 100 l (27 US gal)	
FLUORINE	Supplement for blue and white colour enhancement	1 drop per 100 l (27 US gal)	
KALIUM	Supplement for pink and red colour enhancement	1 drop per 100 l (27 US gal)	
RON	Supplement for green colour enhancement	1 drop per 100 l (27 US gal)	4
MICRO E	Complex of heavy metals for marine organisms	1 drop per 100 l (27 US gal)	1
WATER CHEMISTRY	/ + ADDITIVES		
COMPONENT 1+2+3+	Micro and macronutriens	The dosage varies depending on aquarium types and lifecycle stages.	
COMPONENT A	Replenishment of barium and strontium levels	10 ml per 200 l 19 drops for 5 US gal	
COMPONENT B	Replenishment of heavy metals levels	19 drops for 5 US gal 10 ml per 200 l 19 drops for 5 US gal	
COMPONENT C	Replenishment of lodine and fluorine levels	10 ml per 200 l	
	•	19 drops for 5 US gal 20 ml per 200 l	

Recommended dosing when the light is switched off

Shake well before use

<sup>\*</sup> Once opened, store in the fridge

Mg Plus	Increases Magnesium levels	20 ml per 200 l 2 tsp in 27 US gal
KH PLUS	Increases carbonate levels	20 ml per 200 l 2 tsp in 27 US gal
CALCIUM	Maintains constant levels of calcium in coral reef aquaria	50 g per 1 l 13 tbsp/1 US gal
MAGNESIUM	Maintains constant levels of magnesium in coral reef aquaria	10 g per 1 l 2.4 tbsp/1 US gal
KH BUFFER	Maintains constant levels of carbonate hardness in coral reef aquaria	80 g per 1 l 1.28 cups/1 US gal
REEF MINERAL SALT	Maintains constant levels of minerals in coral reef aquaria	25 g per 1 l 6.14 tbsp/1 US gal
COMPONENTS STRONG	Supplement containing all microelements required in coral reef aquaria	5 ml per 1 l 19ml/ 1 US gal
Dansen Dia	Specialist solution for bathing corals.	
PROTECT DIP	Thoroughly cleanses the surface of coral	Dosage according to the product manual
FILTRATION MEDIA		Dosage according to the product manual
		Dosage according to the product manual  100 ml per 100 l (27 US gal)
FILTRATION MEDIA	Thoroughly cleanses the surface of coral	
FILTRATION MEDIA CARBON	Thoroughly cleanses the surface of coral  Removes undesired chemicals from marine and freshwater aquaria	100 ml per 100 l (27 US gal)
FILTRATION MEDIA  CARBON  PHOSPHATE MINUS	Thoroughly cleanses the surface of coral  Removes undesired chemicals from marine and freshwater aquaria  Adsorbing and reducing phosphates and silicates	100 ml per 100 l (27 US gal) 25-100 ml/100 l (27 US gal) 100-500 ml per 100 l

Dosage outlined above is based on our own experience and has been tested in Aquaforest Coral Farm. Each aquarium has its own very specific set of conditions, so the actual dosage should be adjusted to individual needs and tank lifecycle stages. The demand for supplementing changes depends on your aquarium type, therefore dosage in SPS reef tanks will be different than in fish only or in soft coral aquariums. We recommend that you start with half of the indicated dosage and that you watch your aquarium carefully before and after supplementing with any product.



# Test the water - know your aquarium better!





# In our laboratory we are testing:

Li, Si, I, Ba, Mo, Ni, Mn, Be, Cr, Co, Fe, V, Zn, Hg, Se, Cd, Sn, Sb, As, Al, Pb, Ti, Cu, La, Sc, W, Na, Ca, Mg, K, Br, B, Sr, S, P, PO,

+ Salinity & KH extra!

www.marinlab.com

# AQUAFOREST AQUARIUM JOURNAL

Date:				Time:				
Temp:	Salinity:	рН	КН	NO2	NO <sub>3</sub>	PO4	Са	Mg
Recomme	endations:							
Date:				Time:				
Temp:	Salinity:	pН	КН	NO <sub>2</sub>	NO <sub>3</sub>	PO4	Са	Mg
Recomme	endations:							
Date:				Time:				
Temp:	Salinity:	рН	КН	NO2	NO <sub>3</sub>	PO4	Ca	Mg
Recomme	endations:							
Date:				Time:				
Temp:	Salinity:	рН	КН	NO <sub>2</sub>	NO <sub>3</sub>	PO4	Ca	Mg
Recomme	endations:							
Date:				Time:				
Temp:	Salinity:	рН	КН	NO2	NO <sub>3</sub>	PO4	Са	Mg

**Recommendations:** 

# AQUAFOREST AQUARIUM JOURNAL

Date:				Time:				
Temp:	Salinity:	рН	КН	NO2	NO <sub>3</sub>	PO4	Са	Mg
Recomme	endations:							
Date:				Time:				
Temp:	Salinity:	рН	КН	NO <sub>2</sub>	NO <sub>3</sub>	PO4	Ca	Mg
Recomme	endations:							
Date:				Time:				
Temp:	Salinity:	рН	КН	NO <sub>2</sub>	NO <sub>3</sub>	PO4	Ca	Mg
Recomme	endations:							
Date:				Time:				
Temp:	Salinity:	рН	КН	NO2	NO <sub>3</sub>	PO4	Ca	Mg
Recomme	endations:							
Date:				Time:				
Temp:	Salinity:	рН	КН	NO <sub>2</sub>	NO <sub>3</sub>	PO4	Са	Mg

**Recommendations:** 



Aquaforest is trademark of Aquaforest sp. z o.o. sp. k. ul. Starowiejska 18 32-800 Brzesko, Poland (+48) 14 691 79 79 info@aquaforest.eu www.aquaforest.eu









ICP-OES technology & quality control





