INVE AQUACULTURE

REGULAR CYSTS

# ENHANCED ARTEMIA CYSTS SELECTED FOR THEIR OUTSTANDING HATCHING AND SEPARATION QUALITIES

IL Artemia

SEP-Art SMArt D-FENSE

**PATENTED PROPRIETARY PROCESSING TECHNOLOGY**

**NO NEED TO RINSE, DISINFECT OR DECAPSULATE**

**CAREFULLY SELECTED FOR BEST HATCHING**

**VERY SYNCHRONOUS HATCHING**

**EXTENDED OPPORTUNITY TO FEED INSTAR I STAGE**

**INCLUDES D-FENSE**

**CERTIFIED HATCHING OUTPUT**

## REGULAR CYSTS

INVE developed the concept and brands of regular cysts more than 30 years ago. Cysts are classified according to their characteristics such as hatching efficiency, speed of development and enrichment.

INVE regular cysts originate from various lakes around the world and are selected and processed to provide quality cyst products that define our unique brands.

**IL Artemia** are enhanced cysts that have undergone specific treatments (patented by INVE) during processing in order to hatch optimally.

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CARE FOR GROWTH

# IL Artemia

## PRODUCT DESCRIPTION

Enhanced cysts are Artemia cysts that are still or partially in diapause and consequently do not optimally hatch if not treated. Through years of R&D and investment, INVE has developed specific methods to break the diapause of these cysts and make the product easily available for all customers. Upon application of this process the cysts hatch at their full potential. This process is called "hatching enhancing techniques" and is patented by INVE.

For the **IL** product, only cysts with high natural buoyancy are selected. Proprietary processing technology further enhances the separation of the nauplii from the shell and unhatched cysts after hatching.

**IL** cysts undergo a series of selection criteria aimed at providing a product with maximum biomass per nauplii and excellent nutritional value.

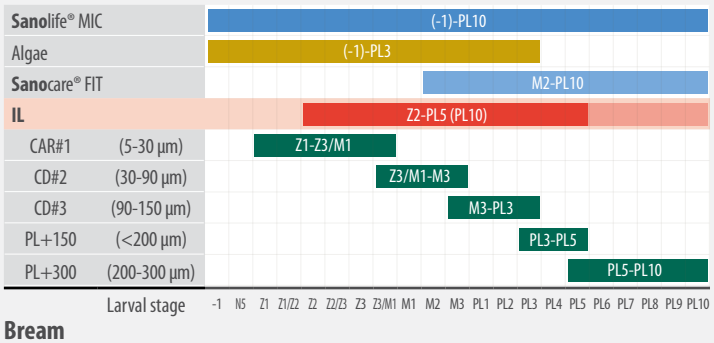
**IL** cysts are commercialized with **D-FENSE** included as a standard feature and are also available with **SEP-*Art*** and **SMArt** technologies.

## APPLICATION

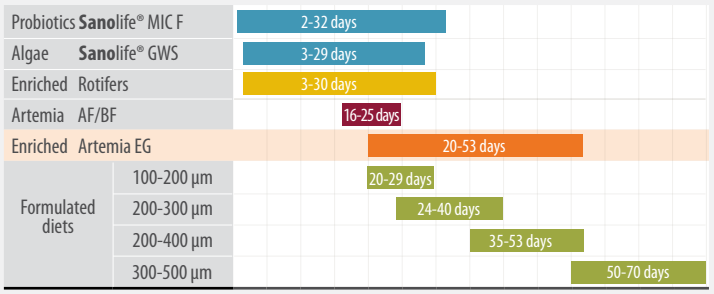
Artemia nauplii are hatched and they are either fed directly to larvae at Instar I or further nutritionally enhanced from Instar II by the process of enrichment.

### Typical feeding protocols indicating in which phase Artemia is fed

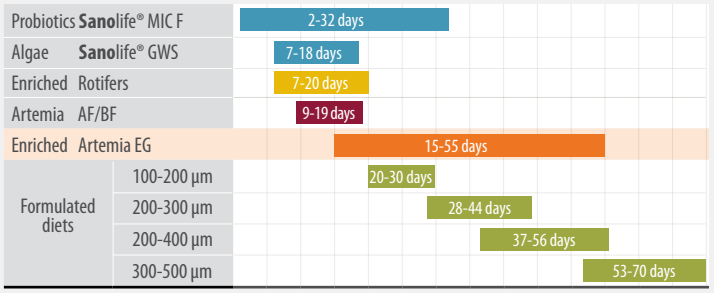
**L. vannamei**




**Bream**




**Bass**




* protocols should be adapted to local conditions. For further assistance, contact your local representative.

## PACKAGING

425 g/can 12 cans/carton and 5 kg/alubag 2 alubags/carton

## STORAGE

Store in a dry place below 5°C. Temperature above 5°C can reduce the quality of the product. During storage the packaging should be kept carefully closed. Once opened, the product should be used immediately.

## WHY IT SHOULD BE USED?

**Specifications**

- Instar I are directly fed to crustacean larvae
- Good separation of **IL** Artemia
- Synchronous hatching
- Extended period to collect and feed Instar I stage with a high nutritional energy content
- **D-FENSE** as a standard feature
- Available in different grades
- Guaranteed INVE quality certification

## INSTRUCTIONS FOR USE

**General parameters for optimal Artemia hatching**

### Tank preparation

1. After completion of a hatching, take out all removable parts (pipes, air tubes etc.), rinse and clean them separately with soap. Then disinfect by immersion in a chlorine solution (150 ppm)
2. Rinse the tank walls
3. Thoroughly brush the tank with soap
4. Rinse and repeat exercise with bleach solution
5. Rinse again extensively with water and fill the tank with filtered sea water. Make sure that all cysts and cystshells are removed (e.g. remaining in outlet and in valves of the tank)
6. Disinfect the hatching water with e.g. 10 ppm active chlorine and aerate gently for ±1 hour
7. Deactivate any remaining chlorine by adding 8 ppm sodium thiosulphate

### Start of hatching

**IL** Artemia cysts hatch optimally if the parameters listed below are respected.

1. Check the temperature of the water in the hatching tank prior to hatching
2. Aerate vigorously
3. Add the required amount of cysts into the hatching tank
4. Switch on the light and start hatching
5. Check the pH of the medium. The pH should be 8-8.5 during the entire hatching process. If necessary, add dissolved sodium bicarbonate or carbonate (preferably add bicarbonate half an hour before incubation, and immediately before adding the cysts also add 120 ppm of NaOH. In general a second dose of 120 ppm of NaOH will be necessary at T12).

### Optimal hatching

**Tank shape**: Cylindro-conical or U/V-shaped
**Aeration**: Open ended or perforated PVC pipe

| Salinity | Temperature | Light | pH | Cyst density | Oxygen |
|---|---|---|---|---|---|
| 25-30 ppt | 29°C | 3000-4000 Lux | 8-8.5 | 2-3g/l | ≥4ppm |

### End of hatching

Hatching is ended when the highest number of nauplii are obtained, normally hatching should be terminated within 18-24 h. Subsequently the nauplii can be harvested, rinsed and restocked to enrich.
However, since Artemia is a living organism and cysts are collected from a natural environment incubation time might change from year to year.
For further information contact your local INVE representative.

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For more information, please contact your local INVE Aquaculture Service Center or take a minute to visit our free Artemia knowledge hub:
**http://artemia.inveaquaculture.com**

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