

## FOOD TREATMENT SOLUTION

### DESCRIPTION

DYNASPHER GC120UH-F is uniform gel strong acid cation exchange resin, supplied in H<sup>+</sup> form with high DDV content. It is a copolymer of styrene and 10% DVB with sulphonic acid exchange groups. The uniform beads guarantee low pressure drops. It has excellent physical and chemical properties, high operating capacity, lower pressure drop, well physical and chemical stability. Its matrix promotes better kinetics and better diffusion rates into and out of the beads. DYNASPHER GC120UH-F regenerated with H<sub>2</sub>SO<sub>4</sub> or HCl is mainly used for wine and grape juices acidification. It is remove completely the potassium responsible for the formation of potassium bi-tartrate precipitate.

### SYSTEM DESIGN

Co - current / Counter current / Floating bed / Blocked bed

#### PRINCIPAL APPLICATIONS

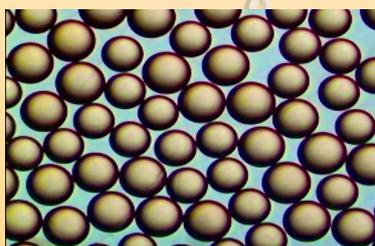
- Fruit juices acidification
- Fruit juices demineralization
- Natural extracts
- Milk whey
- Pharmaceutical
- Nutraceutical
- Water

#### REGULATORY

- F.D.A. – CFR 21 – 173.25
- Codes Alimentarius – Inventory of Processing Aids – CAC/MISC3
- European Resolution AP (97) – 1 regarding the TOC (Total Organic Carbon) released according AFNOR method (method T90 – 601)

#### TYPICAL PACKAGING

- 1 ft<sup>3</sup> Sack
- 25 lt Sack
- 5 ft<sup>3</sup> Drum (Fiber)
- 1 m<sup>3</sup> Supersack
- 42 ft<sup>3</sup> Supersack



PRODUCT INFORMATION  
**DYNASPHER GC140UH-F**  
STRONGLY ACID GEL CATION RESIN

## TYPICAL CHARACTERISTICS

### PHYSICAL CHARACTERISTICS

Copolymer	Styrene - divinylbenzene
Matrix	Gel
Type	Strong acid cation
Functional Group	Sulfonic acid
Physical Form	Yellowish brown uniform transparent spherical beads

### CHEMICAL CHARACTERISTICS

Ionic Form as Shipped	H <sup>+</sup>
Total Exchange Capacity	≥ 2.0 eq/lt
Water Retention	45.0-52.0 %

### PARTICLE SIZE

Particle Diameter	0.65 ± 0.05 mm
Uniformity Coefficient	≤ 1.1
< 300 µm	≤ 0.1 %
> 1180 µm	≤ 3.0 %

### STABILITY

Whole Uncracked Beads	≥ 98 %
Swelling	Na <sup>+</sup> → H <sup>+</sup> +7 %

### DENSITY

Particle Density	1.22 - 1.25 g / ml
Shipping Weight	740 - 840 g / lt

For additional size in formation, please refer to the our Technical Dept.

### SUGGESTED OPERATING CONDICTIONS

Temperature Range (Na <sup>+</sup> Form)	5 - 150 °C (41 - 302 °F)
pH Range	1 - 14
Service Cycle	1 - 14
Stable	0 - 14

For additional praticle size information regarding recommended minimum bed depth, operating conditions, and regeneration conditions for Layered or Mixed bed, please refer to our tecnical dept.

# PRODUCT INFORMATION

## DYNASPHER GC140UH-F

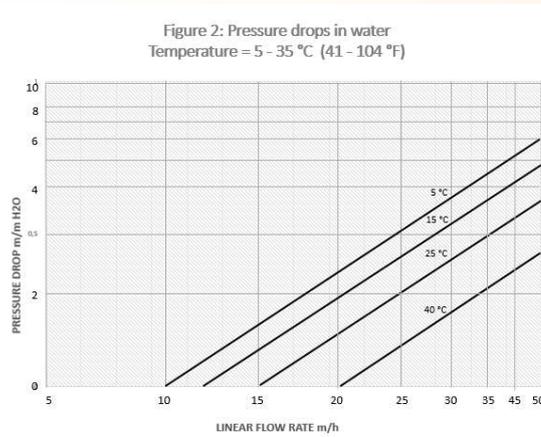
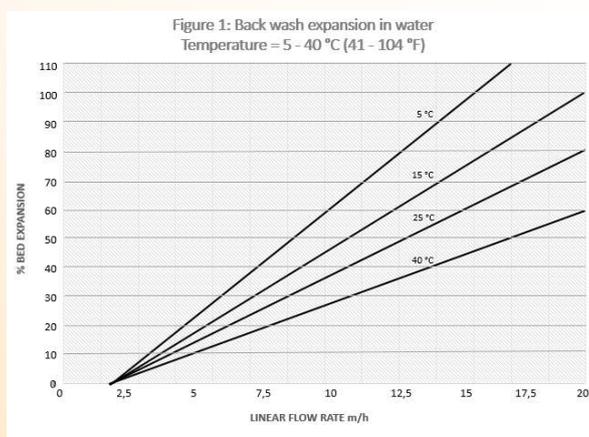
### STRONGLY ACID GEL CATION RESIN

## HYDRAULIC CHARACTERISTICS

Estimated bed expansion of DYNASPHER GC140UH-F as a function of backwash flowrate and temperature is show in figure 1.

Estimated pressure drop for DYNASPHER GC140UH-F as a function of service flowrate and temperature is show in figure 2.

These pressure drop expectations are valid at the start of the service run with clean water and well – classified bed.



## CUSTOMER NOTICE

### STORAGE

It is recommended to store ion exchange resins at temperatures above the freezing point of water under roof in dry conditions without exposure to direct sunlight. If resin should become frozen, it should not be mechanically handled and left to thaw out gradually at ambient temperature. It must be completely thawed before handling or use. No attempt should be made to accelerate the thawing process.

### DISPOSAL

In the European Community Ion exchange resins have to be disposed, according to the European waste nomenclature which can be accessed on the internet – site of the European Union.

### TOXICITY

The safety data sheet must be observed. It contains additional data on product description, transport, storage, handling, safety and ecology.

### WARNING

Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.