PRODUCT INFORMATION

DYNASPHER GC120U-F

STRONGLY ACID GEL CATION RESIN

FOOD TREATMENT SOLUTION

DESCRIPTION

DYNASPHER GC120U-F is uniform gel strong acid cation exchange resin, supplied in Na^+ form. It is a copolymer of styrene and 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 promotoes better kinetics and better diffusion rates into and out of the beads. DYNASPHER GC120U-F regenerated with H2SO4 or HCl is mainly used for wine and grape juices acidification. It is remove completely the potassium responsable for the formation of potassium bi-tartrate precipitate..

SYSTEM DESIGN

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

PRINCIPAL APPLICATIONS

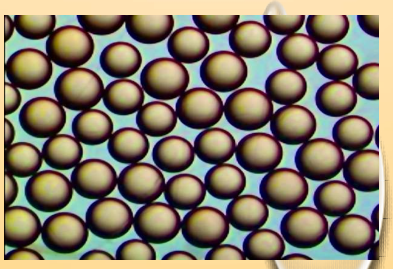
- Fruit juces acidification
- Fruit juices demineralization
- Natural extracts
- Sugars
- Milk whey
- Pharmaceutical
- Nutraceutical
- Metallurgical
- Water

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) realeased according AFNOR method (method T90 – 601)

TYPICAL PACKAGING

- 1 ft³ Sack
- 25 lt Sack
- 5 ft³ Drum (Fiber)
- 1 m³ Supersack
- 42 ft³ Supersack



Consulting Firm RFP SRLS
Via Brofferio 1 - 20158 MILANO - ITALY
Phone +39 (02) 84573272
www.rfpconsulting.it
resin@rfpconsulting.it

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TYPICAL CHARAPTERISTICS

PHYSICAL CHARAPTERISTICS

Copolymer	Polystyrene Crosslinked-DVB
Matrix	Gel
Type	Strong acid cation resin gel type
Functional Group	Sulphonic SO3H
Physical Form	Yellowish brown trasparent uniform spherical beads

CHEMICAL CHARAPTERISTICS

Ionic Form as Shipped	Na^+
Total Exchange Capacity	≥ 2.0 eq/lt
Water Retention	42.0 - 48.0 %

PARTICLE SIZE

Particle Diameter	0.65 ± 0.05 mm
Uniformity Coefficient	≤ 1.1
< 300 µm	≤ 0.5 %
> 1180 µm	≤ 2.0 %

STABILITY

Whole Uncracked Beads	≥ 98 %
Swelling	$Na^+ \longrightarrow H^+$ +6 % max

DENSITY

Particle Density	1.20 - 1.25 g/ml
Shipping Weight	800 - 860 g/lt

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

SUGGESTED OPERATING CONDICTIONS

Temperature Range (Na+ Form)	5 - 120 °C (41 - 248 °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.

HYDRAULIC CHARACTERISTICS

Estimated bed expansion of DYNASPHER GC120U-F as a function of backwash flowrate and temperature is show in figure 1.

Estimated pressure drop for DYNASPHER GC120U-F as a function of service flowrate and temperature is show in figure 2.

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

Figure 1: Back wash expansion in water
Temperature = 5 - 40 °C (41 - 104 °F)

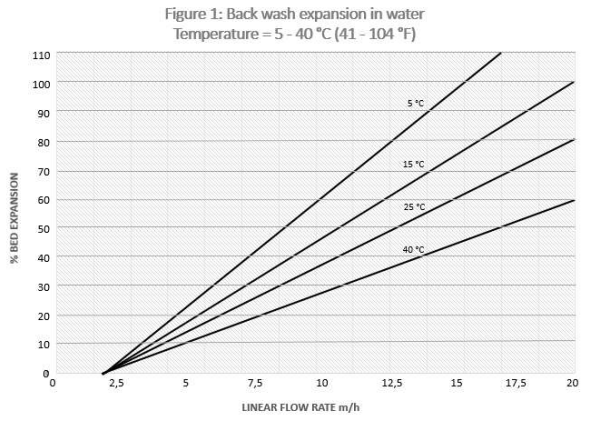
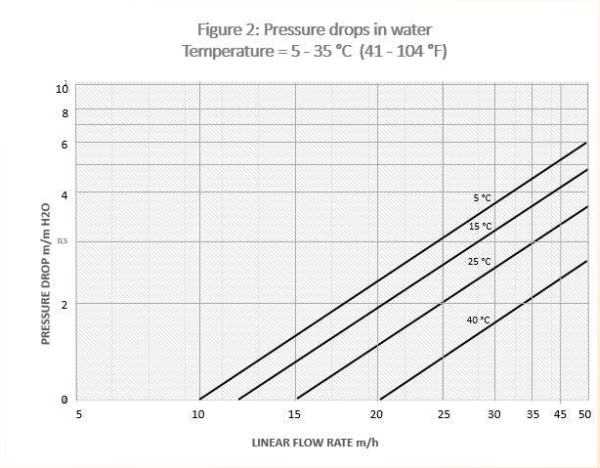


Figure 2: Pressure drops in water
Temperature = 5 - 35 °C (41 - 104 °F)



CUSTOMER NOTICE

STORAGE

It is recommended to store ion exchange resins at temperatures above the freezing point of water under roof in dry conditions whithout 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.