CHEMICAL RESISTANCE GUIDE FOR AQUAMARK® 400 and AQUAMARK® +480

GALE Pacific Aquamark® is manufactured from virgin grade Polypropylene (PP) which inherently has very good chemical resistance to the most common materials encountered in a water contact application.

Scope and Field of Application

This document establishes a provisional classification of the chemical resistance of Aquamark® with respect to a number of chemicals. It is intended to provide general guidelines on the possible utilisation of Aquamark® for the storage of chemicals. The recommendations are provided on the basis that storage temperatures will not exceed 50°C.

For contact with chemicals not specified of this document (or temperatures exceeding 50°C), contact GALE Pacific to determine their suitability of use.

Definitions, Symbols and Abbreviations

The criteria of classifications, definitions, symbols and abbreviations adopted in this document are as follows:

S = Satisfactory = The long-term performance of Aquamark® is not expected to be affected due to prolonged exposure to the defined chemical

L = Limited = There is a high probability that the long-term performance of Aquamark® will be reduced due to prolonged exposure to the defined chemical.

NS = Not Satisfactory = The chemical resistance of Aquamark® will not be suitable for the intended chemical and will not be recommended for use in this application.

Limitation of Use

Aquamark is NOT recommended for the containment of hazardous materials or waste (including poisonous, highly corrosive (pH<4), toxic, PFAS, radioactive, flammable, etc).

Aquamark is NOT recommended for use in applications which have direct contact with De-Ionized water, such as water processed through Reverse Osmosis (RO) and/or applications which have a Langelier Saturation Index (LSI) less than -0.5. Contact GALE Pacific for such applications.

Aquamark will have poor long-term resistance to mineral and synthetic oils, gasoline, kerosene, diesel, aviation fuels, bleach solutions, strong oxidizing, fatty acids and high levels of free chlorine.

Chemical Resistance of Aquamark

Chemical or Product	Concentration	Suitability
Ammonium Chloride	Saturated Solution	NS
Ammonium Sulphate	Saturated Solution	S
Animal fat/grease		S
Animal Sewerage/Wash-down		S
Aviation Fuel	100%	NS
Beer	100%	S
Benzene	100%	NS
Brine	Saturated Solution	S
Bromine, Liquid	100%	NS
Calcium Carbonate	Saturated Solution	S
Calcium Hypochlorite	20%	NS
Chlorine, Liquid (Free Ion)	Up to 5ppm	S
Chlorine, Liquid (Free Ion)	5-10ppm	L
Chlorine, Liquid (Free Ion)	Over 10ppm	NS
Citric Acid	10%	S
Detergents	2%	S
Ethylene Glycol	100%	NS
Formaldehyde	40%	NS
Fructose		S
Fruit Juices		S
Gasoline, Petrol	100%	NS
Glucose	20%	S
Grease (Petroleum based)	100%	NS
Hydrochloric Acid	2%	S
Hydrochloric Acid	Up to 10%	L
Hydrochloric Acid	Over 10%	NS
Hydrogen Peroxide	3%	NS
Inks	100%	S
Kerosene	100%	NS
Ketones		NS
Lactic Acid	20%	S
Magnesium Chloride	Saturated Solution	S
Magnesium Hydroxide	Saturated Solution	S
Methyl Alcohol	5%	L
Milk	100%	S
Molasses		S
Motor Oil (Synthetic or Natural)	100%	NS

Paraffin Oil		L
Petrol	100%	NS
Potassium Chloride	Saturated Solution	S
Potassium Hydroxide	Up to 10%	L
Seawater	100%	S
Sodium Bicarbonate	Saturated Solution	S
Sodium Chloride	Saturated Solution	S
Sodium Hydroxide	1%	S
Sodium Hypochlorite	Up to 10%	NS
Sulphuric Acid	Up to 10%	L
Toluene	100%	NS
Turpentine	100%	NS
Urea	Saturated Solution	S
Urine	100%	S
Vinegar	100%	S
Water (distilled, soft, hard)	100%	S
Wines		S
Xylene	100%	NS
Zinc Chloride	Saturate Solution	L