Aquivion® PW79S

Perfluorosulfonic Acid

Solvay Specialty Polymers

Message:

Aquivion® PW79S coarse, acid powder based on the short-side-chain (SSC) copolymer of Tetrafluoroethylene and the Sulfonyl Fluoride Vinyl Ether (SFVE) CF2=CF-O-(CF2)2-SO2F produced by Solvay. The resulting perfluoropolymer's functional groups are in their sulfonic acid form, SO3H. Aquivion® PW79S is chemically-stabilized (denoted by the S-suffix).

Aquivion® PW79S is characterized by a low equivalent weight and a high ionic exchange capacity. It can be used as is under conditions where conventional exchange resins have shown insufficient chemical resistance.

Due to its superacid functionality with many active groups, it can be used either directly or as an ingredient of composite structures active as a heterogeneous catalyst. This encompasses a wide range of organic syntheses and respective reaction mechanisms. It is insoluble in water, acid or bases and in most solvents unless extreme conditions are applied.

Furthermore Aquivion® PW79S can be dissolved in some organic solvents to produce ion exchage capacity membrane. Proper organic solvents are dipolar aprotic such as N-ethyl-2-pyrrolidone (NEP) and dimethyl sulfoxide. To facilitate the dissolution, slightly increase the temperature to 50-60°C

General Information			
Appearance	White		
Forms	Powder		
Physical	Nominal Value	Unit	Test Method
Equivalent (EW) ¹	770 - 810	g/eq	Internal method
Moisture Content	5.0	wt%	
Total acid content	1.23 - 1.30	meq/g	Internal method
Additional Information			

HEALTH, SAFETY AND ENVIRONMENT

Aquivion® powders are not harmful if used and handled according to standard processing procedures, such as those outlined in "The Guide to the Safe Handling of Fluoropolymer Resins" issued by the Society of the Plastics Industry. If handled inappropriately, membranes may release harmful toxic chemicals. Please refer to corresponding Material Safety Data Sheets for more information on handling and safety.

PACKAGING, SHIPMENT AND STORAGE

Aquivion® powders are delivered in standard polypropylene bottles and drums. Products should be kept closed in their original packaging.

NOTE

1. eq = mol SO3H

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Recommended distributors for this material

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