Aquivion® D79-25BS
perfluorosulfonic acid

Aquivion® D79-25BS is a perfluorosulfonic acid ionomer dispersion that exhibits an Equivalent Weight (EW) of 790 g/eq. Polymer concentration is 25% w/w. Solvent system is >99% w/w water and is free of ethers.

Aquivion® dispersions are based on the unique Short Side Chain copolymer of Tetrafluoroethylene (TFE) and Sulfonyl Fluoride Vinyl Ether (SFVE) F2C=CF-O-CF2CF2-SO2F produced by Syensqo. The perfluorosulfonic acid ionomer dispersions contain its acid form (-SO3H) and are available in various EWs. Aquivion dispersions can be used by the customer to manufacture dispersions based on a variety of solvent blends.

These dispersions are suitable for electrode binder applications of electrochemical devices including fuel cells, electrolyzers and potentially Power to X electrochemical devices. Aquivon dispersions can also be used for the production of membranes, supported or not by ePTFE or woven reinforcements.

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• North America
Appearance	• Off-White	
Forms	• Liquid	

Physical	Typical Value	Unit	Test method
Density (20°C)	1.15	g/cm³	ASTM D1475
Equivalent Weight (EW) [1]	790	g/eq	Internal Method
HSE/Transport Classification	Corrosive		
Polymer Concentration - nominal	25 %w/w		TGA
Solvent System	99 %w/w Water, free of ethers.		
Total Acid Capacity	1.27	meq/g	Internal Method
Viscosity (25°C)	< 25	mPa·s	ASTM D2196

Flammability	Typical Value	Unit
Flammability - at ambient conditions	No	

Additional Information

HEALTH, SAFETY AND ENVIRONMENT

- Aquivion® dispersions are not harmful if used and handled according to standard processing procedures (see for example the "Guide to the Safe Handling of Fluoropolymer Resins" issued by the Society of the Plastics Industry). If handled inappropriately (e.g. overheating above 260°C (500°F) for extended period of time) the dispersions may release harmful toxic chemicals. By their chemical properties Aquivion® dispersion grades are classified as hazardous material subject to transportation regulations (ADR, IATA, IMDG). Specifically D79-25BS is corrosive (R-SO3H being a strong acid, measured pH < 2). Please refer to corresponding Material Safety Data Sheets for more information on handling and safety.

PACKAGING, SHIPMENT AND STORAGE

- Aquivion® D79-25BS is available in 5 and 69 kg or 5 and 60 liter containers. It is recommended to store the product at between 5 - 50 °C in a clean temperature-controlled and well ventilated environment, protected from direct sunlight and other sources of heat or irradiation. Containers should be kept tightly closed to avoid solvent evaporation.

Notes

Typical properties: these are not to be construed as specifications.

[1] eq = mol SO3H

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