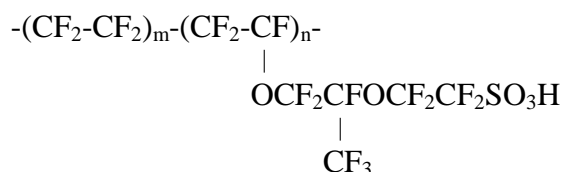


DuPont[®] Nafion[®] PFSA Superacid Resins NR-40 and NR-50 perfluorosulfonic acid polymer

Superacid Resins

Description

DuPont[™] Nafion[®] PFSA Superacid Resin is a bead-form, strongly acidic resin developed for heterogeneous acid catalysis of a wide variety of organic reactions. It is a copolymer of tetrafluoroethylene and perfluoro-3,6-dioxo-4-methyl-7-octenesulfonyl fluoride, converted to the proton (H⁺) form, with a chemical structure shown below:



The maximum use temperature is 200 °C, and local exhaust ventilation should be used for operations above 150 °C in open systems.

Typical Properties

Bead size	7 to 9 mesh (3mm x 4mm)
Bulk density (g/cc)	1.25
Ion exchange capacity (meq/g)	
NR-40	1.0
NR-50	0.9
Water content (wt. %)	< 2

Order and Packaging Information

Nafion[®] PFSA Superacid Resin is available in 1, 2, 5 and 10 kg packages, with a minimum 1 kg order quantity. Contact Customer Service for availability of larger quantities.

Nafion[®] PFSA Superacid Resin is packaged in sealed plastic bags, and placed inside fiberboard shippers, which meet DOT and UN standards for both domestic and international ground and air shipments. Dry Nafion[®] PFSA Superacid Resin is hygroscopic and may exceed the 2% moisture content after shipping and storage.



The miracles of science[™]

Safe Handling and Use of Nafion® PFSA Superacid Resin

The following information should be reviewed before handling and processing Nafion® PFSA Superacid Resin:

- DuPont Material Safety Data Sheet for Nafion® PFSA Superacid Resin
- Nafion® Technical Information "Safe Handling and Use"
- "Guide to Safe Handling of Fluoropolymer Resins", Third Edition, June 1998, Published by the Fluoropolymers Division of the Society of the Plastics Industry, Inc.

For more information about Nafion® contact:

DuPont Fluoroproducts
Nafion® Global Customer Service
22828 NC Highway 87 W
Fayetteville, NC 28306, U.S.A.

Telephone: (910) 678-1380
Domestic U.S.A. only: (800) 436-1336
Overseas: (910) 678-1337
Fax: (910) 678-1342

The DuPont Oval Logo, DuPont™, and The miracles of science™ are trademarks or registered trademarks of E. I. du Pont de Nemours and Company. **Nafion®** is a DuPont registered trademark for its brand of perfluorosulfonic acid polymer products, made and sold only by E. I. du Pont de Nemours and Company.

The data listed here fall within the normal range of product properties, but they should not be used to establish specification limits nor used alone as the basis of design. This information is based on technical data that DuPont believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. This information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards. Because conditions of product use are outside our control, DuPont makes no warranties, express or implied, and assumes no obligation or liability in connection with any use of this information or for results obtained in reliance thereon. The disclosure of the information is not a license to operate under or a recommendation to infringe any patent of DuPont or others.

Caution: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement", H-50102.



The miracles of science™