

PFA: Perfluoroalkoxy

NEOFLON® PFA



PRODUCT DESCRIPTION

PFA is a high-performance, melt-processible fluoropolymer that exhibits similar characteristics to PTFE. It performs exceedingly well in extreme thermal and chemical environments.

Afton Plastics processes the following grades of PFA:

General Purpose Grades:
Neoflon® fluoroplastics AP-230

High Purity Grades:
Neoflon® fluoroplastics grade AP-231SH

CONTACT US

Address:
9701 Penn Avenue S. | Suite 107
Bloomington, MN 55431

Toll Free:
1 (800) 344-7499

Fax:
1 (952) 881-6565

Website:
www.aftonplastics.com



PRODUCT BENEFITS

- Temperature range: -320°F to +500°F
- Exceptional dielectric insulation properties
- Negligible moisture absorption
- Low coefficient of friction
- Non-stick surface
- Very low gas permeation and outgassing
- May be welded with hot air welding equipment
- Chemically inert to all industrial chemicals and solvents
- High resistance to outdoor weathering
- Does not support combustion
- Low metals and ion extractables

TYPICAL APPLICATIONS

- Pump housings and pipe linings
- Fluid handling or chemical processing equipment
- Wet bench equipment
- Tanks
- Semiconductor wafer carriers
- Hostile environments involving chemical, thermal, and mechanical stress
- Food processing and packing equipment

MATERIAL CLASS

- ASTM D 3307 Type II
- USDA and FDA compliant CFR-177.1550
- 3A Sanitary Standard 20-17
- USP Class VI

Data Sheet - NEOFロン® PFA

PROPERTY	GRADE			
	TEST METHOD	UNIT	AP-230	AP-231SH
MECHANICAL/PHYSICAL				
Melt Flow Rate	D3307	g/10 min	1.5-2.5	1.5-2.5
Specific Gravity	D3307	g/cm ³	2.14-2.16	2.12-2.17
Water Absorption, 24 hr.	D570	%	<0.01	<0.01
Tensile Strength, 23°C	D3307	psi	4,350	4,350
Elongation, 23°C	D3307	%	300	300
Compressive Strength, 25°C*	D695	psi	725-870	725-870
Impact Strength, 23°C, Notched Izod	D256	J/m	No Break	No Break
Flexural Modulus, 23°C	D790	psi	84,000-100,000	84,000-100,000
Durometer Hardness, Shore D	D2240	D	60	60
Coefficient of Friction			0.04-0.05	0.04-0.05
Deformation Under Load, 25°C, 1987 psi,	D621	%	8-9	8-9
			<i>* At 1% Deformation</i>	
THERMAL				
Melting Point, Nominal	D3307	°C	300-310	300-310
Thermal Expansion (21°C to 100°C)	D696	mm/mm/°C	12 x 10 ⁻⁵	12 x 10 ⁻⁵
Oxygen Index	D2863	%	>95	>95
Maximum Service Temperature		°C	260	260
Flammability	UL 94		V-0	V-0
ELECTRICAL				
Volume Resistivity	D257	ohm-sq	10 ¹⁸	10 ¹⁸
Dielectric Strength Short Time (.125in)	D149	Volts/mil	500-600	500-600
Dielectric Constant, 23°C, 10 ⁶ Hz	D150		2.1	2.1
Dissipation Factor, 23°C, 10 ⁶ Hz	D150		.003	.003