

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.

General Purpose Grades:
Neoflon™ fluoroplastics AP-230

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

CONTACT US

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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 - NEOFLOTM PFA

PROPERTY		GRADE				
MECHANICAL/PHYSICAL	TEST METHOD	UNIT	AP-230	AP-231SH		
	Melt Flow Rate	D3307	g/10 min	1.5-2.5	1.5-2.5	
	Specific Gravity	D3307	g/cm³	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	
	* At 1% Deformation					
	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	