Teflon® PFA 340

Perfluoroalkoxy

DuPont Fluoropolymers

Message:

For inventory control purposes product name may be followed by an X.
Products labeled PFA 340 and PFA 340 X are equivalent and all information in this document is applicable to both.
Typical Application
Applications for DuPont™ Teflon ® PFA 340 include extruded tubing and other profiles for hose, wire and cable insulation, and sleeving; industrial film; and injection or compression molded articles requiring superior electrical, chemical, and thermal properties.
DuPont™ Teflon ® PFA 340 is a general-purpose fluoroplastic resin available in pellet form. Compared with other grades of Teflon ® PFA, its most unique features are a relatively high melt flow rate (typical MFR of 14) and properties that make it suitable for a variety of processes and demanding end uses.
Table 1 shows the typical property data for Teflon ® PFA 340.
Teflon ® PFA 340 is used when traditional extrusion and molding processes are required for producing products with the superior properties of a fluoroplastic resin. Compared to other thermoplastics, the high melt strength and thermal stability of Teflon ® PFA 340 can be used to improve processing rates. Compared with other fluoroplastics, creep resistance at high service temperatures provides a superior balance and level of end-use properties. Teflon ® PFA 340 combines the processing ease of conventional thermoplastics with many properties similar to those of polytetrafluoroethylene.
Properly processed products made from neat Teflon ® PFA 340 resin provide the superior properties characteristic of fluoroplastic resins: chemical inertness, exceptional dielectric properties, heat resistance, toughness and flexibility, low coefficient of friction, non-stick characteristics, negligible moisture absorption, low flammability, performance at temperature extremes, and excellent weather resistance.
In a flame situation, products of Teflon ® PFA 340 resist ignition and do not promote flame spread. When ignited by flame from other sources, their contribution of heat is very small and added at a slow rate with very little smoke.
Teflon ® PFA 340 meets the requirements of ASTM D3307, Type I

General Information	
UL YellowCard	E54681-244681
Features	Low friction coefficient
	Low hygroscopicity
	Low smoke
	Good electrical performance
	Good creep resistance
	Good melt strength
	Good flexibility
	High liquidity
	Good chemical resistance
	Good weather resistance
	Heat resistance, medium
	Thermal stability, good
	Good toughness
Uses	Films
	Wire and cable applications
	Industrial application
	Pipe
	Pipe fittings
	Insulating material

Profile

Forms	Particle
Processing Method	Extrusion
	Resin transfer molding
	Compression molding
	Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	2.15	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (372°C/5.0 kg)	14	g/10 min	ASTM D3307, ISO 12086
Water Absorption (24 hr)	< 0.030	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	55		ASTM D2240, ISO 868
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D3307, ISO 12086
23°C	25.0	MPa	ASTM D3307, ISO 12086
250°C	12.0	MPa	ASTM D3307, ISO 12086
Tensile Elongation			ASTM D3307, ISO 12086
Fracture, 23°C	300	%	ASTM D3307, ISO 12086
Fracture, 250°C	480	%	ASTM D3307, ISO 12086
Flexural Modulus			ASTM D790, ISO 178
23°C	590	MPa	ASTM D790, ISO 178
250°C	55.0	MPa	ASTM D790, ISO 178
Thermal	**Nominal Value**	**Unit**	**Test Method**
Melting Temperature	305	°C	ASTM D4591
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+18	ohms·cm	ASTM D257, ISO 1325
Dielectric Strength			
0.250 mm [1]	80	kV/mm	ASTM D149
0.250 mm	80	kV/mm	IEC 60243-1
Dielectric Constant (1 MHz)	2.03		ASTM D150, IEC 60250
Dissipation Factor (1 MHz)	< 2.0E-4		ASTM D150, IEC 60250
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating [2]	V-0		UL 94
Oxygen Index	> 95	%	ASTM D2863, ISO 4589-2
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Critical Shear Rate (372°C)	50.0	sec^-1	
MIT Folding Endurance [3] (200.0 µm)	1.5E+4	Cycles	ASTM D2176
Weather and Chemical Resistance: Outstanding			
NOTE			
1.	Method A (short time)		

2.	These results are based on laboratory tests under controlled conditions and do not reflect performance under actual fire conditions, current rating is a typical theoretical value.
3.	Depending on fabrication conditions

Recommended distributors for this material

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