Teflon® PFA TE9725

Perfluoroalkoxy

DuPont Fluoropolymers

Message:

For inventory control purposes product name may be followed by an X.
Products labeled PFA TE9725 and PFA TE9725 X are equivalent and all information in this document is applicable to both.
Typical Application
DuPont™ Teflon ® PFA TE9725 is an ideal resin for applications involving compounding and compression molding, as well as extruded tubing and other profiles for hose, electrical insulators, and sleeving; industrial film and products made from film; and injection or blow-molded articles requiring superior electrical, chemical, and thermal properties. Teflon ® PFA TE9725 offers a slightly lower melt flow rate than Teflon ® PFA TE9724, ultimately providing a higher degree of stress-crack resistance.
Description
DuPont™ Teflon ® PFA TE9725 is a general purpose fluoroplastic resin available as loosely compacted fluff. It is intended for use in special application processes in consultation with DuPont. Compared with other grades of Teflon ® PFA, its most unique features are a relatively low flow rate and properties that make it suitable for a variety of processes and demanding end uses, especially compounding and compression molding. Table 1 shows the typical property data for Teflon ® PFA TE9725.
Teflon ® PFA TE9725 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 TE9725 can be used to improve processing rates. Compared with other thermoplastics, Teflon ® PFA TE9725 provides a superior balance and level of end-use properties at high service temperatures. Teflon ® PFA TE9725 combines the processing ease of conventional thermoplastics with many properties similar to those of polytetrafluoroethylene.
Properly processed products made from neat Teflon ® PFA TE9725 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 TE9725 resist ignition and do not promote flame spread. When ignited by flame from other sources, their contribution of heat is very small and dded at a slow rate with very little smoke.
Teflon ® PFA TE9725 meets the requirements of ASTM D3307, Type II

General Information	
Features	Low friction coefficient
	Low hygroscopicity
	Low smoke
	Good electrical performance
	Good melt strength
	Good flexibility
	Low liquidity
	Good chemical resistance
	Good weather resistance
	Heat resistance, medium
	Thermal stability, good
	Good toughness
Uses	Films
	Electrical/Electronic Applications
	Composite
	Pipe
	Pipe fittings

	Profile

Forms	Fluff
Processing Method	Composite Extrusion Resin transfer molding Compression molding Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	2.14	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (372°C/5.0 kg)	1.7	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 (23°C)	26.0	MPa	ASTM D3307, ISO 12086
Tensile Elongation (Break, 23°C)	300	%	ASTM D3307, ISO 12086
Flexural Modulus (23°C)	625	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**
MIT Folding Endurance [3] (200.0 µm)	5.0E+5	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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