Teflon® FEP 9495

Perfluoroethylene Propylene Copolymer

DuPont Fluoropolymers

Message:

DuPont™ Teflon ® FEP 9495 is a melt-processible fluoroplastic resin available in pellet form. It is a copolymer of tetrafluoroethylene and hexafluoropropylene, without additives, that meets the requirements of ASTM D 2116 type II. With a relatively high melt flow rate and excellent electrical properties, Teflon ® FEP 9495 has been specifically designed for high-speed extrusion of thin coatings on small-gauge wires for twisted-pair constructions. Table 1 shows the typical property data for Teflon ® FEP 9495.

As shown in Table 1, this resin provides the electrical and mechanical properties needed for low voltage applications. In addition, Teflon ® FEP 9495 has a higher melt flow rate than most other fluoroplastic resins. This permits higher extrusion speeds and easier processing, making Teflon ® FEP 9495 a cost-effective alternative for producing thin-wall extrusions.

Teflon ® FEP 9495 is designed and made to have improved adhesion to copper wire under specific wireline process conditions, low dissipation factor at high frequencies, and to have significant plate-out resistance in melt extrusion. It is suitable as a solid insulator, and as a foamed insulator when used with an appropriate nucleant in a nitrogen gas injection process.

Teflon ® FEP 9495 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 ® FEP 9495 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 ® FEP 9495 combines the processing ease of conventional thermoplastics with many properties similar to those of polytetrafluoroethylene.

Properly processed products made from neat Teflon ® FEP 9495 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 ® FEP 9495 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.

General Information	
Features	Good Chemical Resistance
	Good Electrical Properties
	Good Flexibility
	Good Toughness
	Good Weather Resistance
	High Heat Resistance
	Low Friction
	Low Moisture Absorption
	Non-Stick
Uses	Communication Wire Insulation
	Low Voltage Insulation
	Thin-walled Insulation
	Wire & Cable Applications
Agency Ratings	ASTM D 2116 type II
Forms	Pellets
Processing Method	Extrusion
	Wire & Cable Extrusion

Physical	Nominal Value	Unit	Test Method
Specific Gravity	2.15	g/cm³	ASTM D792, ISO 12086
Melt Mass-Flow Rate (MFR)			
--	30	g/10 min	ASTM D2116
372°C/5.0 kg	30	g/10 min	ISO 12086
Water Absorption (24 hr)	< 0.010	%	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)	20.0	MPa	ASTM D638, ISO 12086
Tensile Elongation (Break, 23°C)	300	%	ASTM D638, ISO 12086
Flexural Modulus (23°C)	520	MPa	ASTM D790, ISO 178
Thermal	**Nominal Value**	**Unit**	**Test Method**
Peak Melting Temperature	255	°C	ASTM D4591
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength (0.250 mm)	80	kV/mm	ASTM D149, IEC 243
Dielectric Constant			IEC 60250
1 MHz	2.03		ASTM D150
1.00 GHz	2.03		ASTM D2520
Dissipation Factor			IEC 60250
1 MHz	6.0E-4		ASTM D150
1.00 GHz	4.0E-4		ASTM D2520
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating	V-0		UL 94
Oxygen Index	> 95	%	ASTM D2863, ISO 4589-2
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Critical Shear Rate	200	sec^-1	Internal Method
MIT Folding Endurance [1] (200.0 µm)	7.0E+3	Cycles	ASTM D2176
NOTE			
1.	8 mil film		

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China


WECHAT