# Teflon® FFR 880

## Fluoropolymer

### **DuPont Fluoropolymers**

#### Message:

DuPont<sup>™</sup> Teflon <sup>®</sup> fluoropolymer foam resin FFR 880 was developed to meet the demand for superior micro coaxial designs required for manufacturing compact electronic devices. Foamed insulation of Teflon <sup>®</sup> fluoropolymer foam resin FFR 880 provides high-speed data transmissions with minimal distortion and exceptional signal return loss and attenuation performance in ultra-thin wire and cable applications. In addition, the resin's high thermal stability and melt flow rate (nominal MFR of 42) allow for high processing speeds and excellent heat resistance. Teflon <sup>®</sup> fluoropolymer foam resin FFR 880 offers cable designers opportunities for miniaturization and weight savings or the use of larger conductors to construct low-loss cables without the need for increased dielectric dimensions. Supplied as white pellets, Teflon <sup>®</sup> fluoropolymer foam resin FFR 880 is used in a gas injected foam extrusion process to produce foamed dielectric insulation. The fluoropolymer resin is compounded with a proprietary nucleating package, which when combined with nitrogen gas injection, forms uniform foam cells in the insulation. In micro coaxial cables using Teflon <sup>®</sup> fluoropolymer foam resin FFR 880, a typical cable core would have conductor sizes of 26 AWG or smaller, wall thickness of 0.002 in. or greater, with void content up to 55%. These voids are closed cell in nature and range from 0.0002 in. (0.006mm) to 0.0013 in. (0.033 mm) in diameter. Achievable cell size and void content will vary based on wall thickness and processing conditions.

General Information			
Additive	Nucleating Agent		
Features	Foamable		
	Good Thermal Stability		
	High Flow		
	High Heat Resistance		
	Nucleated		
Uses	Foam		
	Insulation		
	Wire & Cable Applications		
Appearance	White		
Forms	Pellets		
Processing Method	Extrusion		
	Foam Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	2.14	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR)	42	g/10 min	ASTM D3307
Thermal	Nominal Value	Unit	Test Method
Peak Melting Temperature	304	°C	ASTM D3307
Electrical	Nominal Value		Test Method
Dielectric Constant			
1 MHz	2.03		ASTM D150
1.00 GHz	2.03		ASTM D2520
Dissipation Factor			

1 MHz	1.0E-4	ASTM D150
1.00 GHz	4.0E-4	ASTM D2520

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#### Recommended distributors for this material

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