

Rynite® FR530 NC010

THERMOPLASTIC POLYESTER RESIN

DuPont Performance Polymers

Message:

30% Glass Reinforced, Flame Retardant, Polyethylene Terephthalate

General Information			
UL YellowCard	E41938-257735		
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Additive	Mold Release		
Agency Ratings	UL Unspecified Rating		
Forms	Pellets		
Processing Method	Injection Molding		
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)		
	Secant Modulus vs. Strain (ISO 11403-1)		
Part Marking Code (ISO 11469)	>PET-GF30FR<		
Resin ID (ISO 1043)	PET-GF30FR(17)		
Physical	Nominal Value	Unit	Test Method
Density	1.68	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (280°C/2.16 kg)	6.00	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	0.80	%	
Flow	0.20	%	
Water Absorption			ISO 62
23°C, 24 hr, 2.00 mm	0.75	%	
Equilibrium, 23°C, 2.00 mm, 50% RH	0.15	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
M-Scale	95		
R-Scale	120		
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	11500	MPa	ISO 527-2
Tensile Stress (Break)	135	MPa	ISO 527-2
Tensile Strain (Break)	2.0	%	ISO 527-2
Tensile Creep Modulus			ISO 899-1
1 hr	11200	MPa	
1000 hr	9700	MPa	
Flexural Modulus	10500	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	9.0	kJ/m ²	
23°C	10	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	40	kJ/m ²	
23°C	40	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	243	°C	ISO 75-2/B
1.8 MPa, Unannealed	225	°C	ISO 75-2/A
Vicat Softening Temperature	220	°C	ISO 306/B50
Melting Temperature ¹	252	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow	1.9E-5	cm/cm/°C	
Flow : -40 to 23°C	2.2E-5	cm/cm/°C	
Transverse	9.2E-5	cm/cm/°C	
Transverse : -40 to 23°C	6.8E-5	cm/cm/°C	
RTI Elec			UL 746
0.400 mm	155	°C	
0.750 mm	155	°C	
1.50 mm	155	°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohms · cm	IEC 60093
Electric Strength	33	kV/mm	IEC 60243-1
Dielectric Constant			
1 kHz	3.80		ASTM D150
1 MHz	3.70		ASTM D150
100 Hz	4.80		IEC 60250
1 MHz	4.70		IEC 60250
Dissipation Factor			
1 kHz	1.1E-6		ASTM D150
1 MHz	1.8E-6		ASTM D150
100 Hz	7.0E-3		IEC 60250
1 MHz	0.010		IEC 60250
Comparative Tracking Index (CTI)	PLC 2		UL 746
Comparative Tracking Index	200	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flammability Classification			IEC 60695-11-10, -20
0.350 mm	V-0		

V-0

1.50 mm

5VA

Oxygen Index

33

%

ASTM D2863, ISO 4589-2

NOTE

1. 10°C/min

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