

Rynite® FR515 NC010

THERMOPLASTIC POLYESTER RESIN

DuPont Performance Polymers

Message:

15% Glass Reinforced, Flame Retardant, Polyethylene Terephthalate

General Information			
UL YellowCard	E41938-257732	E41938-257733	
Filler / Reinforcement	Glass Fiber,15% 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)		
	Shear Stress vs. Shear Rate (ISO 11403-1)		
	Tensile Modulus vs. Temperature, Dynamic (ISO 11403-1)		
	Viscosity vs. Shear Rate (ISO 11403-2)		
Part Marking Code (ISO 11469)	>PET-GF15FR<		
Resin ID (ISO 1043)	PET-GF15FR(17)		
Physical	Nominal Value	Unit	Test Method
Density	1.53	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 ¹	1.2	%	
Across Flow	0.80	%	
Flow	0.30	%	
Flow ²	0.50	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ISO 2039-2
M-Scale	88		
R-Scale	120		
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	6800	MPa	ISO 527-2
Tensile Stress (Break)	107	MPa	ISO 527-2
Tensile Strain (Break)	2.6	%	ISO 527-2
Flexural Modulus	5940	MPa	ISO 178
Flexural Stress	170	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-40°C	7.0	kJ/m ²	
-30°C	7.0	kJ/m ²	
23°C	8.0	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-40°C	20	kJ/m ²	
-30°C	35	kJ/m ²	
23°C	40	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	240	°C	ISO 75-2/B
1.8 MPa, Unannealed	200	°C	ISO 75-2/A
Vicat Softening Temperature	210	°C	ISO 306/B50
Melting Temperature ³	254	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow	1.8E-5	cm/cm/°C	
Flow : -40 to 23°C	3.3E-5	cm/cm/°C	
Flow : 55 to 160°C	1.2E-5	cm/cm/°C	
Transverse	8.8E-5	cm/cm/°C	
Transverse : -40 to 23°C	7.0E-5	cm/cm/°C	
Transverse : 55 to 160°C	1.1E-4	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohms · cm	IEC 60093
Electric Strength	34	kV/mm	IEC 60243-1
Dielectric Constant			
1 kHz	3.10		ASTM D150
1 MHz	3.00		ASTM D150
100 Hz	3.70		IEC 60250
1 MHz	3.70		IEC 60250
Dissipation Factor			
1 kHz	4.0E-7		ASTM D150
1 MHz	1.5E-6		ASTM D150
100 Hz	9.0E-3		IEC 60250
1 MHz	0.015		IEC 60250
Comparative Tracking Index (CTI)	PLC 3		UL 746
Comparative Tracking Index	200	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flammability Classification			IEC 60695-11-10, -20
0.860 mm	V-0		

V-0

1.50 mm

5VA

Oxygen Index

32

%

ASTM D2863, ISO 4589-2

NOTE

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|----|----------|
| 1. | Annealed |
| 2. | Annealed |
| 3. | 10°C/min |

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