

Rynite® 545 NC010

THERMOPLASTIC POLYESTER RESIN

DuPont Performance Polymers

Message:

45% Glass Reinforced Polyethylene Terephthalate

General Information			
UL YellowCard	E41938-257704		
Filler / Reinforcement	Glass Fiber,45% 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 Modulus vs. Temperature (ISO 11403-1)		
	Shear Stress vs. Shear Rate (ISO 11403-1)		
	Viscosity vs. Shear Rate (ISO 11403-2)		
Part Marking Code (ISO 11469)	>PET-GF45<		
Resin ID (ISO 1043)	PET-GF45		
Physical	Nominal Value	Unit	Test Method
Density	1.69	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (280°C/2.16 kg)	2.50	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	0.62	%	
Equilibrium, 23°C, 2.00 mm, 50% RH	0.14	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ISO 2039-2
M-Scale	100		
R-Scale	120		
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	15500	MPa	ISO 527-2
Tensile Stress (Break)	182	MPa	ISO 527-2
Tensile Strain (Break)	2.0	%	ISO 527-2
Tensile Creep Modulus			ISO 899-1

1 hr	15600	MPa	
1000 hr	13300	MPa	
Flexural Modulus	13500	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	11	kJ/m ²	
23°C	11	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	40	kJ/m ²	
23°C	60	kJ/m ²	
Notched Izod Impact Strength (23°C)	11	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
1.8 MPa, Unannealed	226	°C	ISO 75-2/A
8.0 MPa, Unannealed	180	°C	ISO 75-2/C
Vicat Softening Temperature	230	°C	ISO 306/B50
Melting Temperature ¹	252	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow	1.5E-5	cm/cm/°C	
Transverse	8.3E-5	cm/cm/°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	32	kV/mm	IEC 60243-1
Dielectric Constant			
1 kHz	4.00		ASTM D150
1 MHz	3.90		ASTM D150
100 Hz	4.50		IEC 60250
1 MHz	4.40		IEC 60250
Dissipation Factor			
1 kHz	5.0E-7		ASTM D150
1 MHz	1.1E-6		ASTM D150
100 Hz	7.0E-3		IEC 60250
1 MHz	0.011		IEC 60250
Comparative Tracking Index (CTI)	PLC 2		UL 746
Comparative Tracking Index	250	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flammability Classification			IEC 60695-11-10, -20
0.750 mm	HB		
1.50 mm	HB		
Oxygen Index	20	%	ISO 4589-2
NOTE			

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

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

