

# DuPont™ Thermx® PCT

high performance polyester resin

## Thermx® CG933 NC010

Flame Retardant High Performance Polyester Resin

Thermx® CG933 NC010 (formerly Thermx® CG933-9670C) is a 30% glass reinforced, flame retardant polycyclohexylenedimethylene terephthalate resin.

Property	Test Method	Units	Value
<b>Mechanical</b>			
Tensile Strength at Break	ASTM D 638	MPa (kpsi)	120 (17.4)
Elongation at Break	ASTM D 638	%	2
Flexural Modulus	ASTM D 790	MPa (kpsi)	9600 (1400)
Flexural Strength	ASTM D 790	MPa (kpsi)	180 (26.1)
Izod Impact	ASTM D 256	J/m (ft lb/in)	90 (1.7)
Unnotched Impact	ASTM D 4812	J/m (ft lb/in)	690 (13)
<b>Thermal</b>			
Heat Deflection Temperature	ASTM D 648	°C (°F)	
0.45MPa (66psi)			276 (529)
1.8MPa (264psi)			255 (491)
<b>Electrical</b>			
Surface Resistivity	ASTM D 257	ohm	1E16
Volume Resistivity	ASTM D 257	ohm cm	1E15
Dielectric Strength, Short Time	ASTM D 149	kV/mm (V/mil)	
500 V/s, 3.2mm			20.4 (518)
Dielectric Constant	ASTM D 150		
1E3 Hz			3.1
1E4 Hz			3.0
1E5 Hz			3.0
1E6 Hz			3.0

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc. ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2mm. Test temperatures are 23°C unless otherwise stated.

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# Product Information

## Thermx® CG933 NC010

Property	Test Method	Units	Value
<b>Electrical</b>			
Dissipation Factor	ASTM D 150		
1E3 Hz			0.014
1E4 Hz			0.011
1E5 Hz			0.002
1E6 Hz			0.009
CTI	IEC 60112	V	
3.0mm			440
<b>Flammability</b>			
Flammability Classification	UL94		
1.5mm			V-0
<b>Temperature Index</b>			
RTI, Electrical	UL 746B	°C (°F)	
1.5mm			150 (302)
RTI, Strength	UL 746B	°C (°F)	
1.5mm			150 (302)
<b>Other</b>			
Specific Gravity	ASTM D 792		1.63
Molding Shrinkage	ISO 294-4	%	
Normal, 2.0mm			0.8
Parallel, 2.0mm			0.3
<b>Processing</b>			
Melt Temperature Range		°C (°F)	295 - 310 (565 - 590)
Mold Temperature Range		°C (°F)	80 - 120 (175 - 250)
Drying Time, Dehumidified Dryer		h	4 - 6
Drying Temperature		°C (°F)	95 (200)

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