Rynite® SST35 NC010

PET-I-GF35 Celanese

Product Texts

ISO 1043: PET-HIGF35

Common features of Rynite® thermoplastic polyester include mechanical and physical properties such as excellent balance of strength and stiffness, dimensional stability, creep resistance, heat resistance, outstanding colour stability, high surface gloss and inherent good electrical properties. It can be processed over a broad temperature range and has excellent flow properties.

The good melt stability of Rynite® thermoplastic polyester normally enables the recycling of properly handled production waste.
If recycling is not possible, we recommend, as the preferred option, incineration with energy recovery (-22 kJ/g of base polymer) in appropriately equipped installations. For disposal, local regulations have to be observed.

Rynite® thermoplastic polyester typically is used in demanding applications in the automotive, electrical and electronics, appliances, mechanical engineering industry, where they successfully replace metals and thermosets as well as other thermoplastic polymers.

Rynite® SST35 is a 35% glass fibre reinforced, super tough, modified polyethylene terephthalate for injection molding. It has excellent impact resistance and surface aspect.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Density of melt	**1400**	kg/m³	-
[C] Thermal conductivity of melt	**0.21**	W/(m K)	-
[C] Spec. heat capacity of melt	**1700**	J/(kg K)	-
[C] Eff. thermal diffusivity	**1.2E-7**	m²/s	-
[C] Ejection temperature	**170**	°C	-
ASTM Data			
Mold Shrinkage, MD	**0.0013**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.0059**	mm/mm	ASTM D 955

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**7500**	MPa	ISO 527
[C] Stress at break	**90**	MPa	ISO 527
[C] Strain at break	**6**	%	ISO 527
ASTM Data			
Tensile Modulus	**7584**	MPa	ASTM D 638
Elongation at Break	**5**	%	ASTM D 638
Compressive Strength	**81**	MPa	ASTM D 695
Flexural Modulus	**6890**	MPa	ASTM D 790
Flexural Strength	**145**	MPa	ASTM D 790
Rockwell Hardness	**R 105**	-	ASTM D 785
Izod Impact notched, 1/8 in	**225**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**154**	J/m	ASTM D 256
Temperature	**-40**	°C	-

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Coeff. of linear therm. expansion, normal	**130**	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**HB**	class	IEC 60695-11-10
Thickness tested	**1.5**	mm	-
Yellow Card available	**yes**	-	-
[C] Burning Behav. at thickness h	**HB**	class	IEC 60695-11-10
Thickness tested	**0.8**	mm	-
Yellow Card available	**yes**	-	-
ASTM Data			
UL 94 Flame rating	**HB**	-	UL 94

Thickness tested	**1.5**	mm	-
DTUL @ 66 psi	**246**	°C	ASTM D 648
DTUL @ 264 psi	**220**	°C	ASTM D 648
Melting Temperature	**250**	°C	ASTM D 3418

[C]: CAMPUS

Electrical properties	**Value**	**Unit**	**Test Standard**
ISO Data			
[C] Relative permittivity, 100Hz	**5**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**4.4**	-	IEC 62631-2-1
[C] Electric strength	**29**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**500**	-	IEC 60112
ASTM Data			
Surface Resistivity	**1E13**	Ohm	ASTM D 257
Volume Resistivity	**1E14**	Ohm*cm	ASTM D 257

[C]: CAMPUS

Other properties	**Value**	**Unit**	**Test Standard**
[C] Density	**1520**	kg/m³	ISO 1183
Water Absorption, 24hr	**0.25**	%	ASTM D 570
Density	**1520**	kg/m³	ASTM D 792

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Delivery form
Pellets, Natural Color

Additives
Release agent

Special Characteristics
High impact or impact modified, Heat stabilized or stable to heat

Applications
Automotive

Regional Availability
North America, Europe, Asia Pacific, South and Central America, Near East/Africa