Amodel® AS-1133 HS

PPA-GF33 Syensqo

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	**0.004**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.008**	mm/mm	ASTM D 955

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	**12200 / -**	MPa	ISO 527
Yield stress	**225 / -**	MPa	ISO 527
Strain at break	**3 / -**	%	ISO 527
Flexural modulus, 23°C	**10300 / -**	MPa	ISO 178
Charpy impact strength, +23°C	**82 / -**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**11 / -**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C	**11 / -**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**13100 / 13100**	MPa	ASTM D 638
Tensile Strength at Break	**221 / 193**	MPa	ASTM D 638
Elongation at Break	**2.5 / 2.1**	%	ASTM D 638
Compressive Strength	**276 / 247**	MPa	ASTM D 695
Flexural Modulus	**10300 / 10300**	MPa	ASTM D 790
Rockwell Hardness	**R125 /**	-	ASTM D 785
Izod Impact notched, 1/8 in	**85 / 75**	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	**1000 / -**	J/m	ASTM D 256

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
Melting temperature, 10°C/min	**310 / ***	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	**277 / ***	°C	ISO 75-1/-2
ASTM Data			
UL 94 Flame rating	**HB**	-	UL 94
Thickness tested	**3.2**	mm	-
Melting Temperature	**310**	°C	ASTM D 3418

Electrical properties	dry / cond	Unit	Test Standard
ASTM Data			
Dielectric Strength, Short Time	**21 / 21**	kV/mm	ASTM D 149
Dissipation Factor, 60 Hz	**0.005 / 0.009**	-	ASTM D 150
Dissipation Factor, 1 MHz	**0.017 / 0.022**	-	ASTM D 150
Dielectric Constant, 60 Hz	**4.4 / 4.7**	-	ASTM D 150
Dielectric Constant, 1 MHz	**4.2 / 4.3**	-	ASTM D 150
Volume Resistivity	**0 / >1E15**	Ohm*cm	ASTM D 257
Arc Resistance	**140 / 120**	s	ASTM D 495

Optical properties	Value	Unit	Test Standard
ASTM Data			
Light Transmittance	**35**	%	ASTM D 1003

Other properties	dry / cond	Unit	Test Standard
Density	**1440 / -**	kg/m³	ISO 1183
Water Absorption, 24hr	**0.21**	%	ASTM D 570

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**120**	°C	-
Pre-drying - Time	**4**	h	-
Processing humidity	**≤0.045**	%	-
Melt temperature	**321 - 343**	°C	-
Mold temperature	**135**	°C	-

Feed temperature	**79**	°C	-
Zone 1	**304 - 318**	°C	-
Zone 2	**316 - 329**	°C	-

Characteristics

Processing
Injection Molding

Delivery form
Pellets, Black, Natural Color

Special Characteristics
Heat stabilized or stable to heat

Features
Creep Resistance

Chemical Resistance
General Chemical Resistance, Oil Resistance

Applications
Automotive, IT / Business Machine, Electrical and Electronical, General Purpose

Regional Availability
North America, Europe, Asia Pacific