

Amodel® AS-4145 HS

PPA-GF45

Syensqo

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	0.005	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.01	mm/mm	ASTM D 955
Water Absorption, 24hr	0.21	%	ASTM D 570

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	16100 / -	MPa	ISO 527
Stress at Break	224 / -	MPa	ISO 527
Strain at Break	2.2 / -	%	ISO 527
Impact Strength (Charpy), +23°C	63 / -	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	10 / -	kJ/m²	ISO 179/1eA
Flexural Modulus (23°C)	13400 / -	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	10 / -	kJ/m²	ISO 180/1A

ASTM Data			
Tensile Modulus	15200 / 15200	MPa	ASTM D 638
Tensile Strength at Break	228 / 186	MPa	ASTM D 638
Elongation at Break	2.4 / 2.1	%	ASTM D 638
Compressive Strength	172 / 159	MPa	ASTM D 695
Flexural Modulus	13100 / 13100	MPa	ASTM D 790
Notched Impact Strength (Izod), 1/8 in	100 / 96	J/m	ASTM D 256

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	320 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	298 / *	°C	ISO 75-1/-2
Burning Behav. at thickness h	HB / *	class	UL 94
Thickness tested	3.2 / *	mm	-

ASTM Data			
Melting Temperature	320	°C	ASTM D 3418

Electrical Properties	dry / cond	Unit	Test Standard
ASTM Data			
Dielectric Strength, Short Time	24 / 25	kV/mm	ASTM D 149
Dissipation Factor, 60 Hz	0.004 / 0.024	-	ASTM D 150
Dissipation Factor, 1 MHz	0.011 / 0.037	-	ASTM D 150
Dielectric Constant, 60 Hz	4 / 4.9	-	ASTM D 150
Dielectric Constant, 1 MHz	3.7 / 4	-	ASTM D 150
Volume Resistivity	>1E15 / 6E14	Ohm*cm	ASTM D 257

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Density	1550 / -	kg/m³	ISO 1183

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	121	°C	-
Pre-drying - Time	4	h	-
Processing humidity	≤0.1	%	-
Melt temperature	329 - 343	°C	-
Mold temperature	66 - 93	°C	-
Feed temperature	79	°C	-
Zone 1	318 - 324	°C	-
Zone 2	327 - 332	°C	-

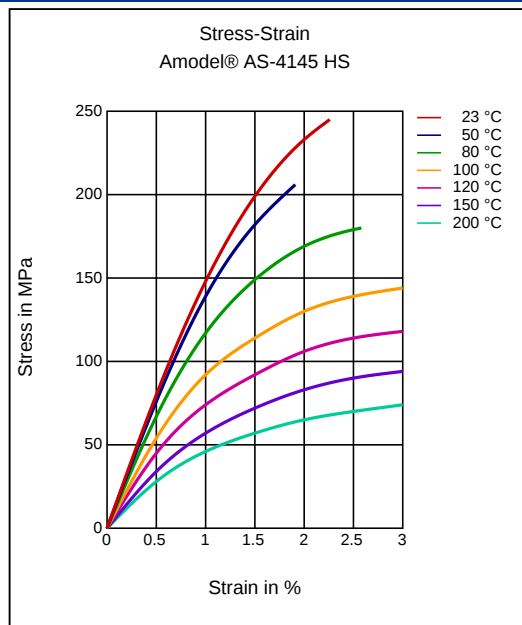
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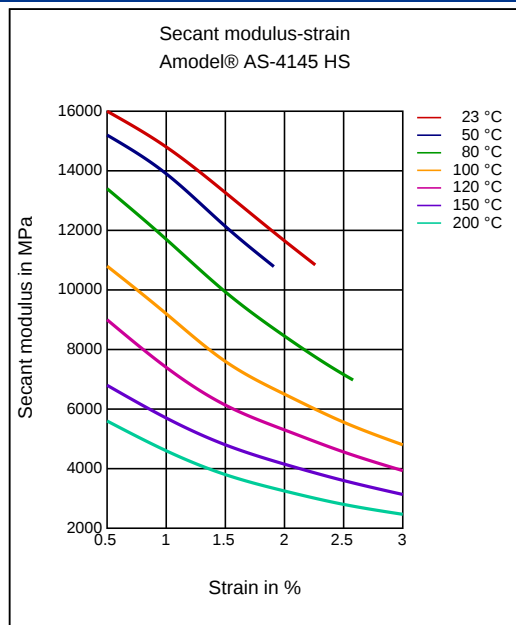
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Diagrams

Stress-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Delivery form

Pellets, Black

Additives

Lubricants, Release agent

Special Characteristics

Heat aging stabilized

Features

Creep Resistance, High Crystallinity

Chemical Resistance

General Chemical Resistance

Applications

Automotive, IT / Business Machine, Electrical and Electronic, General Purpose