

Amodel® AS-1145 HS

PPA-GF45

Syensqo

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	0.002	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.006	mm/mm	ASTM D 955
Water Absorption, 24hr	0.12	%	ASTM D 570

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	16000 / -	MPa	ISO 527
Stress at Break	263 / -	MPa	ISO 527
Strain at Break	2.7 / -	%	ISO 527
Notched Impact Strength (Charpy), +23°C	12 / -	kJ/m²	ISO 179/1eA
Flexural Modulus (23°C)	14800 / -	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	14 / -	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	17200 / 17200	MPa	ASTM D 638
Tensile Strength at Break	259 / 228	MPa	ASTM D 638
Elongation at Break	2.6 / 2.1	%	ASTM D 638
Compressive Strength	314 / 302	MPa	ASTM D 695
Flexural Modulus	13800 / 13800	MPa	ASTM D 790
Rockwell Hardness	R125 / -	-	ASTM D 785
Notched Impact Strength (Izod), 1/8 in	120 / 100	J/m	ASTM D 256
Impact Strength (Izod), 1/8 in	1300 / -	J/m	ASTM D 256

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	312 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	279 / *	°C	ISO 75-1/-2
ASTM Data			
UL 94 Flame rating	HB	-	UL 94
Thickness tested	3.2	mm	-
Melting Temperature	312	°C	ASTM D 3418

Electrical Properties	dry / cond	Unit	Test Standard
ASTM Data			
Dielectric Strength, Short Time	22 / 22	kV/mm	ASTM D 149
Dissipation Factor, 60 Hz	0.005 / 0.009	-	ASTM D 150
Dissipation Factor, 1 MHz	0.016 / 0.021	-	ASTM D 150
Dielectric Constant, 60 Hz	4.6 / 4.9	-	ASTM D 150
Dielectric Constant, 1 MHz	4.4 / 4.5	-	ASTM D 150
Volume Resistivity	>1E15 / 0	Ohm*cm	ASTM D 257
Arc Resistance	145 / 125	s	ASTM D 495

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Density	1560 / -	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	321 - 343	°C	-
Mold temperature	135	°C	-
Feed temperature	79	°C	-
Zone 1	304 - 318	°C	-
Zone 2	316 - 329	°C	-

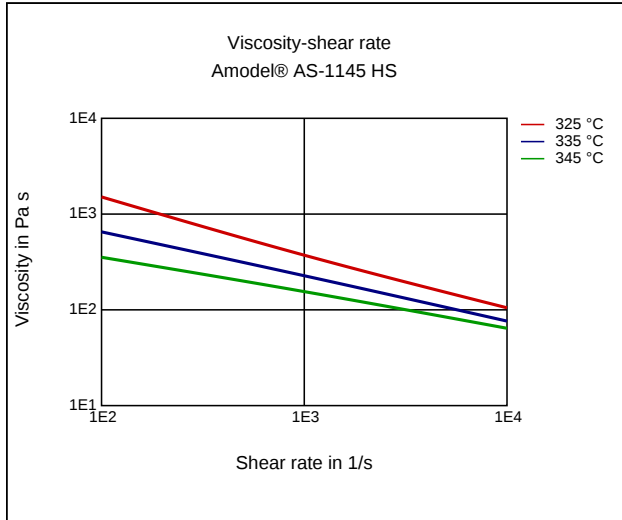
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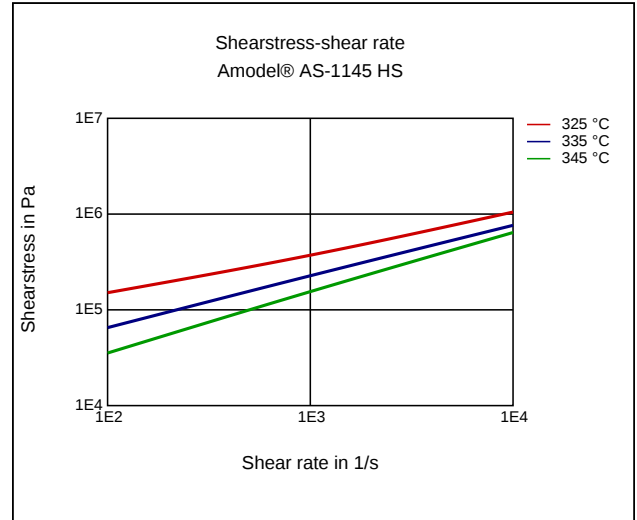
Syensqo

Diagrams

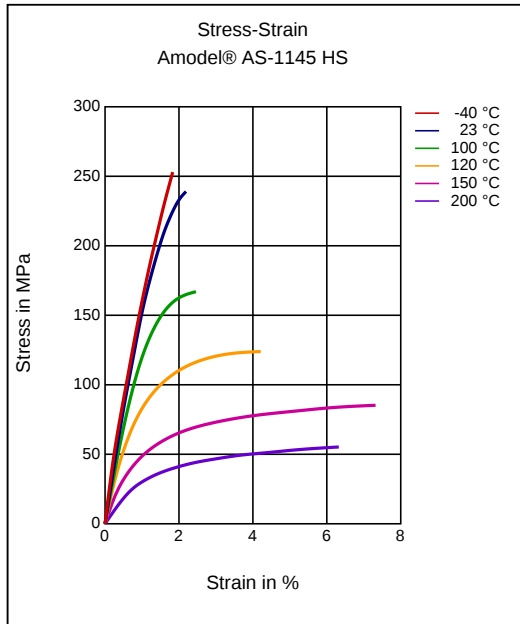
Viscosity-shear rate



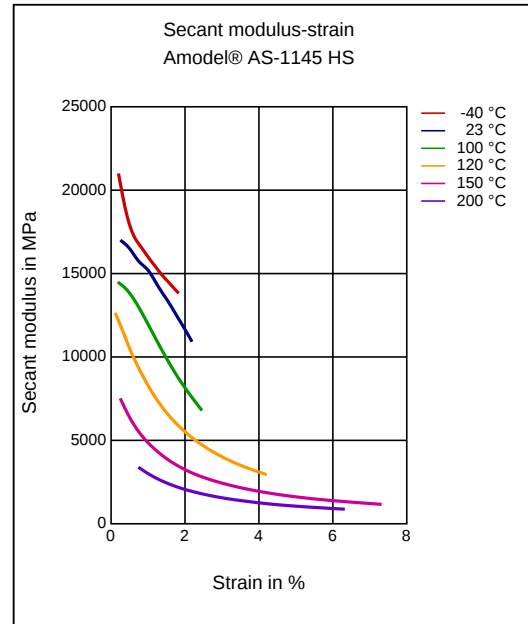
Shearstress-shear rate



Stress-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Delivery form

Pellets, Black, Natural Color

Special Characteristics

Heat aging stabilized

Features

Creep Resistance

Chemical Resistance

General Chemical Resistance

Applications

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