

Amodel® AS-4133 HS
PPA-GF33

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	0.29	%	ASTM D 570
Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	12600 / -	MPa	ISO 527
Stress at Break	211 / -	MPa	ISO 527
Strain at Break	2.6 / -	%	ISO 527
Impact Strength (Charpy), +23°C	67 / -	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	11 / -	kJ/m ²	ISO 179/1eA
Flexural Modulus (23°C)	10400 / -	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	9.7 / -	kJ/m ²	ISO 180/1A
Impact Strength (Izod), 23°C	59 / -	kJ/m ²	ISO 180/1U
ASTM Data			
Tensile Modulus	11700 / 11700	MPa	ASTM D 638
Tensile Strength	200 / 172	MPa	ASTM D 638
Elongation at Break	2.5 / 2.2	%	ASTM D 638
Compressive Strength	179 / 172	MPa	ASTM D 695
Flexural Modulus	11000 / 11000	MPa	ASTM D 790
Flexural Strength	290 / 241	MPa	ASTM D 790
Notched Impact Strength (Izod), 1/8 in	80 / 69	J/m	ASTM D 256
Impact Strength (Izod), 1/8 in	960 / -	J/m	ASTM D 256
Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	327 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	294 / *	°C	ISO 75-1/-2
Burning Behav. at thickness h	HB / *	class	UL 94
Thickness tested	3.2 / *	mm	-
ASTM Data			
Melting Temperature	327	°C	ASTM D 3418
Electrical Properties	dry / cond	Unit	Test Standard
ASTM Data			
Dielectric Strength, Short Time	20 / 20	kV/mm	ASTM D 149
Dissipation Factor, 60 Hz	0.004 / 0.02	-	ASTM D 150
Dissipation Factor, 1 MHz	0.012 / 0.019	-	ASTM D 150
Dielectric Constant, 60 Hz	3.8 / 4.3	-	ASTM D 150
Dielectric Constant, 1 MHz	3.6 / 3.4	-	ASTM D 150
Volume Resistivity	0 / 5E14	Ohm*cm	ASTM D 257
Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Density	1450 / -	kg/m ³	ISO 1183
Optical Properties	Value	Unit	Test Standard
ASTM Data			
Light Transmittance	20	%	ASTM D 1003
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	4	h	-
Processing humidity	≤0.045	%	-
Melt temperature	329 - 343	°C	-
Mold temperature	66 - 93	°C	-
Zone 1	318 - 324	°C	-
Zone 2	327 - 332	°C	-

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Injection speed

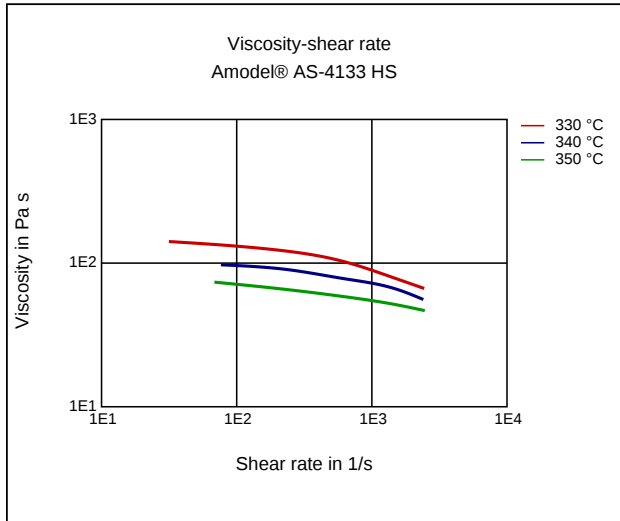
76 - 102

mm/s

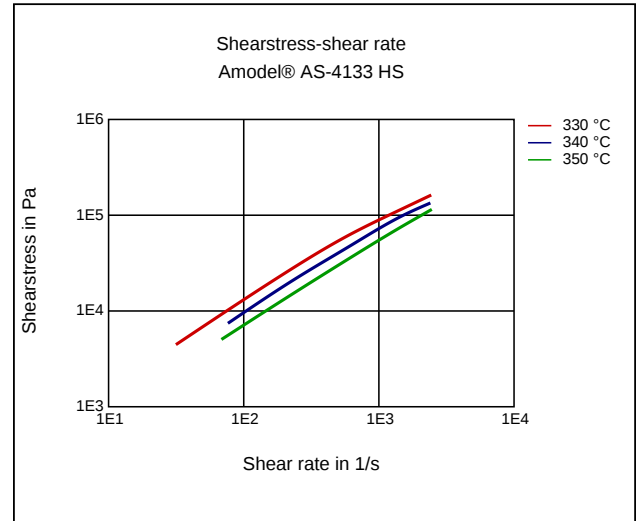
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Diagrams

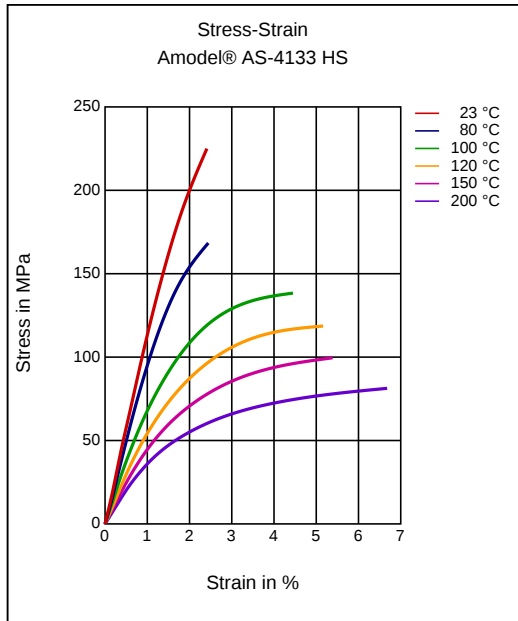
Viscosity-shear rate



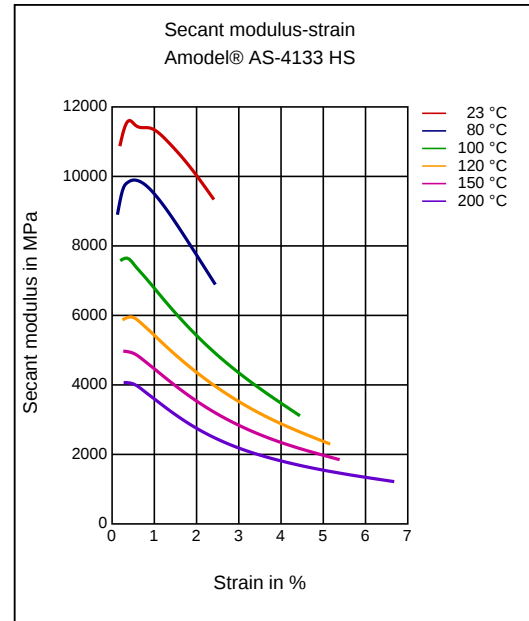
Shearstress-shear rate



Stress-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Delivery form

Pellets, Black, Natural Color

Features

Creep Resistance

Chemical Resistance

General Chemical Resistance

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Additives

Lubricants, Release agent

Special Characteristics

Heat aging stabilized

Applications

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