

Solvay Specialty Polymers Amodel® A-6135 HN Polyphthalamide (PPA), 35% Glass Fiber (Dry)

Category : Polymer , Thermoplastic , Polyphthalamide (PPA) , Polyphthalamide (PPA), 40% Glass Fiber Reinforced

Material Notes:

Amodel® A-6135 HN polyphthalamide (PPA) is a 35% glass reinforced resin that is heat stabilized, lubricated and hot-water moldable.

Key properties of the resin are high heat resistance, high strength and stiffness over a broad temperature range. It also exhibits low moisture absorption, excellent chemical resistance and excellent electrical properties. Features: Good Chemical Resistance; Good Creep

Resistance; Good Flow; Good Stiffness; Heat Stabilized; High Heat Resistance; High Stiffness; High Strength; Hot Water Moldability; Low

Moisture Absorption Uses: Automotive Applications; Automotive Electronics; Automotive Under the Hood; Connectors; Electrical Housing;

Electrical/Electronic Applications; General Purpose; Housings; Industrial Applications; Industrial Parts; Lawn and Garden Equipment;

Machine/Mechanical Parts; Metal Replacement; Power/Other Tools; Valves/Valve Parts Injection Molding Notes: Amodel® compounds

are shipped in moisture-resistant packages at moisture levels according to specifications. Sealed, undamaged bags should be preferably

stored in a dry room at a maximum temperature of 50°C (122°F) and should be protected from possible damage. If only a portion of a

package is used, the remaining material should be transferred into a sealable container. It is recommended that Amodel® resins be dried

prior to molding. Automotive Specifications ASTM D6779 PA101G35; GM GMP.PPA.021 Color: Black; GM GMP.PPA.021 Color: Natural; GM

GMW16362P-PPA-GF35 Color: Black Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Amodel-A-6135-HN-Polyphthalamide-PPA-35-Glass-Fiber-Dry.php

Physical Properties	Metric	English	Comments
Density	1.45 g/cc	0.0524 lb/in ³	ISO 1183
Filler Content	35 %	35 %	Glass Fiber
Water Absorption	0.29 % @Time 86400 sec	0.29 % @Time 24.0 hour	ISO 62
Linear Mold Shrinkage, Flow	0.0050 cm/cm	0.0050 in/in	ISO 294-4
	0.0060 cm/cm	0.0060 in/in	
Linear Mold Shrinkage, Transverse	0.0090 cm/cm	0.0090 in/in	ASTM D955
	0.010 cm/cm	0.010 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	125	125	ASTM D785
Tensile Strength at Break	82.0 MPa @Temperature 175 °C	11900 psi @Temperature 347 °F	4; ISO 527-2
	92.4 MPa	13400 psi	4; ISO 527-2

Mechanical Properties	@Temperature 150 Â°C Metric	@Temperature 302 Â°F English	Comments
	121 MPa	17500 psi	4; ISO 527-2
	@Temperature 100 Â°C	@Temperature 212 Â°F	
	211 MPa	30600 psi	4; ISO 527-2
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
Tensile Strength	203 MPa	29400 psi	ASTM D638
Elongation at Break	1.9 %	1.9 %	ASTM D638
	2.0 %	2.0 %	ISO 527-2
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
	4.3 %	4.3 %	ISO 527-2
	@Temperature 100 Â°C	@Temperature 212 Â°F	
	4.7 %	4.7 %	ISO 527-2
	@Temperature 175 Â°C	@Temperature 347 Â°F	
	4.9 %	4.9 %	ISO 527-2
	@Temperature 150 Â°C	@Temperature 302 Â°F	
Tensile Modulus	13.8 GPa	2000 ksi	ASTM D638
	5.31 GPa	770 ksi	4; ISO 527-2
	@Temperature 175 Â°C	@Temperature 347 Â°F	
	6.27 GPa	909 ksi	4; ISO 527-2
	@Temperature 150 Â°C	@Temperature 302 Â°F	
	7.31 GPa	1060 ksi	4; ISO 527-2
	@Temperature 100 Â°C	@Temperature 212 Â°F	
	11.5 GPa	1670 ksi	4; ISO 527-2
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
Flexural Strength	310 MPa	45000 psi	ASTM D790
	112 MPa	16200 psi	4; ISO 178
	@Strain 3.50 %, Temperature 175 Â°C	@Strain 3.50 %, Temperature 347 Â°F	
	123 MPa	17800 psi	4; ISO 178
	@Strain 3.50 %,	@Strain 3.50 %,	

Mechanical Properties	Temperature 150 Â°C Metric	Temperature 302 Â°F English	Comments
	118 MPa	24100 psi	
	@Strain 3.50 %, Temperature 100 Â°C	@Strain 3.50 %, Temperature 212 Â°F	4; ISO 178
	300 MPa	43500 psi	
	@Strain 3.50 %, Temperature 23.0 Â°C	@Strain 3.50 %, Temperature 73.4 Â°F	4; ISO 178
Flexural Modulus	11.4 GPa	1650 ksi	ASTM D790
	4.60 GPa	667 ksi	
	@Temperature 175 Â°C	@Temperature 347 Â°F	ISO 178
	4.90 GPa	711 ksi	
	@Temperature 150 Â°C	@Temperature 302 Â°F	ISO 178
	6.60 GPa	957 ksi	
	@Temperature 100 Â°C	@Temperature 212 Â°F	ISO 178
	11.4 GPa	1650 ksi	
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	ISO 178
Compressive Strength	148 MPa	21500 psi	ASTM D695
Poissons Ratio	0.39	0.39	ASTM E132
Shear Strength	87.6 MPa	12700 psi	ASTM D732
Izod Impact, Notched	0.850 J/cm	1.59 ft-lb/in	ASTM D256
Izod Impact, Unnotched	8.00 J/cm	15.0 ft-lb/in	ASTM D256
Izod Impact, Notched (ISO)	9.10 kJ/mÂ²	4.33 ft-lb/inÂ²	ISO 180
Izod Impact, Unnotched (ISO)	62.0 kJ/mÂ²	29.5 ft-lb/inÂ²	ISO 180
Charpy Impact Unnotched	6.00 J/cmÂ²	28.6 ft-lb/inÂ²	Type 1, Edgewise; ISO 179
Charpy Impact, Notched	0.920 J/cmÂ²	4.38 ft-lb/inÂ²	Type 1, Edgewise; ISO 179

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	16.0 Âµm/m-Â°C	8.89 Âµin/in-Â°F	
	@Temperature 100 - 200 Â°C	@Temperature 212 - 392 Â°F	2
	22.0 Âµm/m-Â°C	12.2 Âµin/in-Â°F	
	@Temperature 0.000 -	@Temperature 32.0 -	2

Thermal Properties	100 Â°C Metric	212 Â°F English	Comments
CTE, linear, Transverse to Flow	61.0 Âµm/m-Â°C	33.9 Âµin/in-Â°F	TMA; ASTM E831
	@Temperature 0.000 - 100 Â°C	@Temperature 32.0 - 212 Â°F	
	100 Âµm/m-Â°C	55.6 Âµin/in-Â°F	TMA; ASTM E831
	@Temperature 100 - 200 Â°C	@Temperature 212 - 392 Â°F	
Melting Point	310 Â°C	590 Â°F	ISO 11357-3
	310 Â°C	590 Â°F	DSC
Deflection Temperature at 0.46 MPa (66 psi)	303 Â°C	577 Â°F	HDT B; Unannealed; ISO 75-2/B
Deflection Temperature at 1.8 MPa (264 psi)	288 Â°C	550 Â°F	Unannealed; ISO 75-2/A
	291 Â°C	556 Â°F	Annealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	316 - 321 Â°C	601 - 610 Â°F	
Front Barrel Temperature	327 - 332 Â°C	621 - 630 Â°F	
Melt Temperature	321 - 335 Â°C	610 - 635 Â°F	
Mold Temperature	65.6 - 93.3 Â°C	150 - 200 Â°F	
Drying Temperature	120 Â°C	248 Â°F	
	@Time 14400 sec	@Time 4.00 hour	
Moisture Content	<= 0.045 %	<= 0.045 %	

Descriptive Properties	Value	Comments
Additive	Heat Stabilizer	
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	Latin America	
	North America	

Color	Black
-------	-------

Descriptive Properties	Value	Comments
Processing Technique	Water-Heated Mold Injection Molding	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com
Email : sales@lookpolymers.com
Tel : +86 021-51131842
Mobile : +86 13061808058
Skype : lookpolymers
Address : United North Road 215,Fengxian District, Shanghai City,China