

Amodel® A-1145 DW

Polyphthalamide

Solvay Specialty Polymers

Message:

Amodel® A-1145 DW is a 45% glass-fiber-reinforced resin designed for high strength and stiffness and improved hydrolytic stability. This material has low moisture absorption and a low coefficient of thermal expansion, which means excellent dimensional stability. Creep resistance is also exceptional. This grade has been approved for use with potable water in the United States, France, Germany, and the United Kingdom.

Natural: A-1145 NT DW

Black: A-1145 BK 937 DW

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 45% filler by weight		
Features	Good dimensional stability		
	Low hygroscopicity		
	Rigidity, high		
	Rigid, good		
	High strength		
	High temperature strength		
	Good creep resistance		
	Good chemical resistance		
Chlorine resistance			
Uses	Pump parts		
	Electrical appliances		
	Valve/valve components		
	Industrial application		
	Pipe components		
	Filter		
	Shell		
Consumer goods application field			
Agency Ratings	NSF 61 2		
RoHS Compliance	RoHS compliance		
Appearance	Black		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.61	g/cm ³	ISO 1183/A
Mechanical	Nominal Value	Unit	Test Method

Tensile Modulus	15100	MPa	ISO 527-2
Tensile Stress (Yield)	232	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	1.8	%	ISO 527-2
Flexural Modulus (23°C)	14000	MPa	ISO 178
Flexural Stress	330	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	9.9	kJ/m ²	ISO 179
Notched Izod Impact	7.8	kJ/m ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	302	°C	ISO 75-2/Af
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.030 - 0.060	%	
Rear Temperature	316 - 329	°C	
Middle Temperature	316 - 329	°C	
Front Temperature	324 - 335	°C	
Processing (Melt) Temp	321 - 343	°C	
Mold Temperature	150	°C	
Injection instructions			

Storage:

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 following the recommendations found in this datasheet and/or in the Amodel® processing guide.

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Recommended distributors for this material

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