# Amodel® DW-1150

### Polyphthalamide

Solvay Specialty Polymers

#### Message:

Amodel DW-1150 is a 50% 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. Black: DW-1150 BK938

General Information					
Filler / Reinforcement	Glass fiber reinforced material, 50% filler by weight				
Features	Good dimensional stability				
	Low hygroscopicity				
	Rigidity, high				
	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				
RoHS Compliance	RoHS compliance				
Appearance	Black				
	Natural color				
Forms	Particle				
Processing Method	Injection molding				
Physical	Nominal Value	Unit	Test Method		
Density	1.68	g/cm³	ISO 1183/A		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus	18000	MPa	ISO 527-2		
Tensile Stress (Break, 23°C)	260	MPa	ISO 527-2		
Tensile Strain (Break, 23°C)	1.9	%	ISO 527-2		

Flexural Modulus (23°C)	18500	MPa	ISO 178
Flexural Strength (Break, 23°C)	400	MPa	ISO 178
Flexural Strain at Break (23°C)	2.3	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	12	kJ/m²	ISO 179
Charpy Unnotched Impact Strength	80	kJ/m²	ISO 179
Notched Izod Impact	12	kJ/m²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	300	°C	ISO 75-2/Af
Injection	Nominal Value	Unit	
njeenen		Onit	
Drying Temperature	120	°C	
Drying Temperature	120	°C	
Drying Temperature Drying Time	120 4.0	°C hr	
Drying Temperature Drying Time Suggested Max Moisture	120 4.0 0.030 - 0.060	°C hr %	
Drying Temperature Drying Time Suggested Max Moisture Rear Temperature	120 4.0 0.030 - 0.060 315 - 330	°C hr % °C	
Drying Temperature         Drying Time         Suggested Max Moisture         Rear Temperature         Middle Temperature	120 4.0 0.030 - 0.060 315 - 330 320 - 340	°C hr % °C °C	
Drying Temperature Drying Time Suggested Max Moisture Rear Temperature Middle Temperature Front Temperature	120 4.0 0.030 - 0.060 315 - 330 320 - 340 325 - 345	°C hr % °C °C °C	
Drying TemperatureDrying TimeSuggested Max MoistureRear TemperatureMiddle TemperatureFront TemperatureProcessing (Melt) Temp	120 4.0 0.030 - 0.060 315 - 330 320 - 340 325 - 345 340 - 360	°C hr % °C °C °C °C °C	

Storage:

Amodel <sup>®</sup> 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<sup>®</sup> resins be dried prior to molding following the recommendations found in this datasheet and/or in the Amodel<sup>®</sup> processing guide.

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#### Recommended distributors for this material

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