

AquaSys® 180 Soluble Support for Additive Manufacturing

Rev 1: 8/21/20

Introducing High Temperature Water Dispersible Support

AquaSys 180 is a high temperature water dispersible thermoplastic material to be extruded, injection molded, or 3D printed.

GENERAL INFORMATION			
Resin	Water Soluble Copolymer		
Filler	Carbohydrate and Polyamide		
Fill level	0-100%		
Uses	Extrusion, Injection Molding, 3D Printing		
Form	Pellets or Filament (1.75mm or 2.85mm)		
PHYSICAL PROPERTIES	TYPICAL VALUE	UNITS	METHOD
Specific Gravity	1.26		ASTM D792
Coefficient Thermal Expansion	4.2E-05	in/in°C	ASTM D696
MECHANICAL PROPERTIES		UNITS	METHOD
Melt Flow Index (260 °C; 5kg)	15.5	g/10min	ASTM D1238
Tensile			ASTM D638
Modulus	983,000	psi	
Strength	18,000	psi	
Elongation @ Break	2.8	%	
Flexural			ASTM D790
Modulus	872,000	psi	
Strength	28,700	psi	
Impact (IZOD)			ASTM D256 / D4812
Unnotched	10.3	ft-lbf/in	
Notched	0.4	ft-lbf/in	
Heat Deflection Temperature (0.45 Mpa)	70	°C	ASTM D648
Vicat Softening (10.0N)	171	°C	ASTM D1525
RECOMMENDED DRYING CONDITIONS			
Oven dry for at least 4-6 hours at 85 °C			
RECOMMENDED MOLDING CONDITIONS			
Barrel temperatures	390 – 435 °F		
Mold temperatures	100 – 130 °F		
STORAGE AND PACKAGING			
Store AquaSys 180 in metallized foil packaging with desiccant. Reseal after use.			
See MSDS/SDS for material handling.			

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