Ultramid® A3EG7 FC Aqua

Polyamide 66

BASF Corporation

Message:

Ultramid® A3EG7FC Aqua black 23285 is optimized for plastic parts, mandatory requiring material approvals for drinking water or direct food contact

General Information	
Filler / Reinforcement	Glass fiber reinforced material, 35% filler by weight
Features	Compliance of Food Exposure
Uses	Non-specific food applications Potable water application
Agency Ratings	ACS not rated DVGW W270 EC 1907/2006 (REACH) EC 2023/2006 FDA 21 CFR 177.1500 FDA 21 CFR 178.3297 KTW not rated NSF Not Rated WRAS not rated Europe 10/1/2011 12:00:00 AM
RoHS Compliance	RoHS compliance
Appearance	Black
Forms	Particle
Processing Method	Injection molding

Physical	Dry	Conditioned	Unit	Test Method
Density	1.41	--	g/cm³	ISO 1183
Apparent Density	0.70	--	g/cm³	
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	30.0	--	cm³/10min	ISO 1133
Molding Shrinkage				ISO 294-4
Vertical flow direction	1.0	--	%	ISO 294-4
Flow direction	0.37	--	%	ISO 294-4
Water Absorption				ISO 62
Saturated, 23°C	4.7 - 5.3	--	%	ISO 62
Equilibrium, 23°C, 50% RH	1.4 - 1.8	--	%	ISO 62
Viscosity Number (96% H2SO4)	145	--	cm³/g	ISO 307

Mold Shrinkage - constrained [1]	0.50	--	%	
Temperature index-at 50% loss of tensile strength				IEC 60216
-- [2]	135	--	°C	IEC 60216
-- [3]	165	--	°C	IEC 60216
Maximum operating temperature-short cycle operation	240	--	°C	
Automotive Materials (> 1.00 mm)	Passed	--		FMVSS 302
Polymer Abbreviation	PA66-GF35	--		
Screw Speed			mm/sec	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	11500	8500	MPa	ISO 527-2
Tensile Stress (Break)	210	150	MPa	ISO 527-2
Tensile Strain (Break)	3.0	5.0	%	ISO 527-2
Tensile Creep Modulus [4] (1000 hr)	--	6650	MPa	ISO 899-1
Flexural Modulus	10000	8000	MPa	ISO 178
Flexural Stress	300	240	MPa	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	12	--	kJ/m²	ISO 179/1eA
23°C	14	22	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	75	--	kJ/m²	ISO 179/1eU
23°C	95	110	kJ/m²	ISO 179/1eU
Notched Izod Impact (23°C)	14	18	kJ/m²	ISO 180/A
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				
0.45 MPa, not annealed	250	--	°C	ISO 75-2/B
1.8 MPa, not annealed	250	--	°C	ISO 75-2/A
Melting Temperature	260	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 80°C	1.5E-5 - 2.0E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 80°C	6.0E-5 - 7.0E-5	--	cm/cm/°C	ISO 11359-2
Specific Heat	1500	--	J/kg/°C	
Thermal Conductivity	0.35	--	W/m/K	DIN 52612
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	--	1.0E+10	ohms	IEC 60093

Volume Resistivity	1.0E+15	1.0E+12	ohms·cm	IEC 60093
Relative Permittivity (1 MHz)	3.50	5.70		IEC 60250
Dissipation Factor (1 MHz)	0.020	0.15		IEC 60250
Comparative Tracking Index (Solution A)	550	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (1.60 mm)	HB	--		UL 94
Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	4.0		hr	
Suggested Max Moisture	0.15		%	
Hopper Temperature	80.0		°C	
Rear Temperature	290		°C	
Middle Temperature	290		°C	
Front Temperature	290		°C	
Nozzle Temperature	290		°C	
Processing (Melt) Temp	280 - 300		°C	
Mold Temperature	80.0 - 90.0		°C	
Injection instructions				
Residence Time : <10 min				
NOTE				
1.	Test box with central gating, dimensions of base (107*47*1,5) mm, processing conditions: TM = 290°C, TW = 80°C			
2.	20000 h			
3.	5000 h			
4.	strain <= 0.5%, 23°C			

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection.All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China


WECHAT