

Experimental XQ 83619.00 Advanced Resin

Overview

XQ 83619.00 is a high reflective rate, ignition resistant polycarbonate resin. This resin does not contain bromine, chlorine and phosphate type flame retardants. XQ 83619.00 is designed with superior light reflectivity as well as UV resistance.

Applications: Information Technology Equipment - Notebook, LCD-TV Back Light Units.

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	17	g/10 min	17	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.0040 to 0.0060	in/in	0.40 to 0.60	%	ASTM D955
Mechanical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Tensile Strength					ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	7980	psi	55.0	MPa	
Tensile Elongation					ASTM D638
Break, 0.126 in (3.20 mm), Injection Molded	95	%	95	%	
Flexural Modulus					ASTM D790
0.126 in (3.20 mm), Injection Molded	363000	psi	2500	MPa	
Flexural Strength					ASTM D790
0.126 in (3.20 mm), Injection Molded	13300	psi	92.0	MPa	
Impact	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Notched Izod Impact					ASTM D256
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	11	ft·lb/in	580	J/m	
Thermal	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Deflection Temperature Under Load					ASTM D648
264 psi (1.8 MPa), Unannealed	248	°F	120	°C	
CLTE - Flow	0.00033	in/in/°F	0.00060	cm/cm/°C	ASTM D696
Flammability	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Flame Rating					UL 94 ¹
0.0394 in (1.00 mm)	V-1		V-1		
0.0591 in (1.50 mm)	V-o		V-o		
Optical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Light Reflective Rate - Injection Molded (o.13 in (3.20 mm))	95	%	95	%	ASTM E1164-02
Injection	Nominal Value	(English)	Nominal Value	(SI)	
Drying Temperature	248	°F	120	°C	
Drying Time	3.0 to 4.0	hr	3.0 to 4.0	hr	
Rear Temperature	518 to 536	°F	270 to 280	°C	
Middle Temperature	518 to 554	°F	270 to 290	°C	
Front Temperature	518 to 554	°F	270 to 290	°C	
Nozzle Temperature	536 to 572	°F	280 to 300	°C	
Mold Temperature	176 to 248	°F	80.0 to 120	°C	

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

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	Published: December 2012					
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