NORYL™ RESIN ZM3640

REGION ASIA

DESCRIPTION

NORYL™ ZM3640 resin is a mineral reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This grade contains non-brominated, non-chlorinated flame retardant and has a UL94 flame rating of V1 at 1.5mm. NORYL ZM3640 resin exhibits high heat resistance, low warpage, good dimensional stability and is an excellent candidate for printer chassis applications.

TYPICAL PROPERTY VALUES

Revision 20190916

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	60	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	4	%	ASTM D 638
Flexural Stress, yield, 6.4 mm	102	MPa	ASTM D 790
Flexural Modulus, 6.4 mm	4620	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	35	J/m	ASTM D 256
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	103	°C	ASTM D 648
CTE, -40°C to 40°C, flow	4.2E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	4.8E-05	1/°C	ASTM E 831
Relative Temp Index, Elec (1)	65	°C	UL 746B
Relative Temp Index, Mech w/impact (1)	65	°C	UL 746B
Relative Temp Index, Mech w/o impact (1)	65	°C	UL 746B
PHYSICAL			
Specific Gravity	1.22	-	ASTM D 792
Melt Flow Rate, 300°C/2.16 kgf	24	g/10 min	ASTM D 1238
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E207780-100140832	-	-
UL Recognized, 94V-1 Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	90 – 95	°C	
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	255 – 280	°C	
Nozzle Temperature	255 – 280	°C	
Front - Zone 3 Temperature	245 – 280	°C	
Middle - Zone 2 Temperature	230 – 275	°C	
Rear - Zone 1 Temperature	220 – 270	°C	
Mold Temperature	65 – 90	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	20 – 100	rpm	
Shot to Cylinder Size	30 – 70	%	

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Vent Depth	0.038 – 0.051	mm	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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