NORYL™ RESIN CN5258

REGION ASIA

DESCRIPTION

NORYL CN5258 resin is a 40% mineral and glass fiber reinforced blend of polyphenylene ether (PPE) + polystyrene (PS). This high modulus, injection moldable grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of 5VB at 2mm and V1 at 1.5mm. NORYL CN5258 resin exhibits good dimensional stability, low moisture absorption, high rigidity and is an excellent candidate for printer chassis applications.

GENERAL INFORMATION	
Features	Flame Retardant, Hydrolytic Stability, Low Warpage, Amorphous, Low Shrinkage, Low Moisture Absorption, Low Specific Gravity, Non Cl/Br flame retardant, Non halogenated flame retardant, Dimensional stability, High stiffness/Strength
Fillers	Glass Fiber, Mineral
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	119	MPa	SABIC - Japan Method
Tensile Strain, break	5	%	SABIC - Japan Method
Flexural Stress	158	MPa	ASTM D790
Flexural Modulus	1.00E+04	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched, 23°C	68	J/m	ASTM D256
THERMAL [1]			
HDT, 1.82 MPa, 6.4 mm, unannealed	125	°C	ASTM D648
CTE, -30°C to 30°C	2.10E-05 – 3.30E-05	1/°C	TMA
Relative Temp Index, Elec [2]	65	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	65	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	65	°C	UL 746B
PHYSICAL [1]			
Specific Gravity	1.42	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.06	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm [3]	0.15 – 0.25	%	SABIC method
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E207780-228542	-	-
UL Recognized, 94-5VB Flame Class Rating	≥2	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥1.5	mm	UL 94

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
INJECTION MOLDING [4]			
Drying Temperature	100	°C	
Drying Time	2 – 4	Hrs	
Melt Temperature	280 – 310	°C	
Nozzle Temperature	280 – 310	°C	
Front - Zone 3 Temperature	280 – 310	°C	
Middle - Zone 2 Temperature	270 – 300	°C	
Rear - Zone 1 Temperature	260 – 290	°C	
Mold Temperature	80 – 100	°C	
Back Pressure	0.5 – 1.2	MPa	
Screw Speed	40 – 60	rpm	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
(2) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses, colors and regions. For details, please see the UL Yellow Card.
(3) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
(4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

DISCLAIMER

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