

NORYL™ PPE POWDERS + CONCENTRATES FR6460C

DESCRIPTION

NORYL Resin FR6460C is a compounded Halogen free flame retarded polyphenylene ether resin containing polystyrene; this grade is intended for use as an additive or a building block in a variety of thermoplastic application such as XPS foams where it enables meeting challenging requirements on thermal, flame and mechanical performance. Noryl FR6460C resin can be used to improve properties like Heat Distortion, and Creep Resistance and Flammability of Polyolefins such as PP and PE.

GENERAL INFORMATION	
Features	Flame Retardant, Hydrolytic Stability, Non-Brominated, Non-Chlorinated, Non-Halogenated, Low Creep Sensitivity, Foamable, Good Stiffness, Good dimensional stability, High Heat Resistance, High Strength, Amorphous, Low Shrinkage, Thermally conductive/Electrically isolative, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
Processing Techniques	Injection Molding, Extrusion

TYPICAL PROPERTY VALUES

Revision 20260518

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Modulus, 1 mm/min	2700	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	76	MPa	ISO 527
Tensile Stress, break, 50 mm/min	76	MPa	ISO 527
Tensile Strain, break, 50 mm/min	3	%	ISO 527
Flexural Modulus, 2 mm/min	2700	MPa	ISO 178
Flexural Stress, yield, 2 mm/min	122	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, notched 80*10*4 +23°C	4	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	100	°C	ISO 75/Af
Vicat Softening Temp, Rate B/120	125	°C	ISO 306
PHYSICAL ⁽¹⁾			
Density	1.07	g/cm ³	ISO 1183
Melt Volume Rate, MVR at 280°C/2.16 kg	13	cm ³ /10 min	ISO 1133
Matrix Tg	125	°C	DMA
Moisture Absorption, (23°C/50% RH/24hrs)	0.06	%	ISO 62-4
Water Absorption, (23°C/saturated)	0.25	%	ISO 62-1
INJECTION MOLDING ⁽²⁾			
Drying Temperature	80 – 100	°C	
Drying Time	2 – 4	Hrs	
Melt Temperature	315 – 325	°C	
Rear - Zone 1 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	290 – 310	°C	
Front - Zone 3 Temperature	315 – 325	°C	
Nozzle Temperature	300 – 320	°C	
Mold Temperature	100 – 120	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
EXTRUSION ⁽³⁾			
Drying Temperature	90 – 100	°C	
Drying Time	2 – 3	Hrs	
FIRST EXTRUDER ⁽⁴⁾			
Hopper Temperature	40 – 50	°C	
Barrel Temperature	140 – 290	°C	
Melt Temperature	200 – 250	°C	
SECOND EXTRUDER			
Barrel Temperature ⁽⁵⁾	80 – 200	°C	

- (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) 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.
- (3) Foam extrusion parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations. Tandem extruder is recommended for Foam extrusion. First extruder is for creating Homogeneous Melt, Dissolution of gas/Blowing agents, Plasticization. For Second extruder Decrease temp and build pressure to the die
- (4) Twin screw extruder
- (5) Single screw extruder

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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