NORYL™ Resin PX1630

REGION EUROPE

DESCRIPTION

NORYL PX1630 is a 30% glass fiber reinforced blend of polyphenylene ether (PPE) + polystyrene (PS).

GENERAL INFORMATION	
Features	Hydrolytic Stability, Low Warpage, Amorphous, Low Shrinkage, Low Corrosivity, Low Moisture Absorption, Low Specific Gravity, Potable water safe, Dimensional stability, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component, Water Management

TYPICAL PROPERTY VALUES

Revision 20260206

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break, 5 mm/min	106	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2	%	ISO 527
Tensile Modulus, 1 mm/min	8100	MPa	ISO 527
Flexural Stress, break, 2 mm/min	170	MPa	ISO 178
Flexural Modulus, 2 mm/min	7050	MPa	ISO 178
Taber Abrasion, CS-17, 1 kg	70	mg/1000cy	SABIC method
Ball Indentation Hardness, H358/30	130	MPa	ISO 2039-1
IMPACT [1]			
Multiaxial Impact [2]	6	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	34	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	30	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	11	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	10	kJ/m²	ISO 180/1A
THERMAL [1]			
CTE, -40°C to 40°C, flow	2.E-5	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.E-5	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate A/50	155	°C	ISO 306
Vicat Softening Temp, Rate B/50	149	°C	ISO 306
Vicat Softening Temp, Rate B/120	158	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	145	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	140	°C	ISO 75/Ae

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Relative Temp Index, Elec [3]	65	°C	UL 746B
Relative Temp Index, Mech w/impact [3]	65	°C	UL 746B
Relative Temp Index, Mech w/o impact [3]	65	°C	UL 746B
PHYSICAL [1]			
Specific Gravity	1.29	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm [4]	0.1 – 0.3	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm [4]	0.2 – 0.5	%	SABIC method
Water Absorption, (23°C/saturated)	0.2	%	ISO 62-1
Density	1.3	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.06	%	ISO 62
Melt Volume Rate, MVR at 300°C/10.0 kg	16	cm³/10 min	ISO 1133
ELECTRICAL [1]			
Volume Resistivity	1.E+15	Ω.cm	IEC 60093
Dielectric Strength, in oil, 3.2 mm	18	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	2.9	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.0006	-	IEC 60250
Dissipation Factor, 1 MHz	0.001	-	IEC 60250
Relative Permittivity, 50/60 Hz	2.9	-	IEC 60250
Surface Resistivity, ROA	>1.E+15	Ω	IEC 60093
FLAME CHARACTERISTICS [3]			
UL Yellow Card Link	E45329-103460844	-	-
UL Recognized, 94HB Flame Class Rating	≥1.5	mm	UL 94
Oxygen Index (LOI)	26	%	ISO 4589
Glow Wire Flammability Index 750°C, passes at [5]	3	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 3.0 mm [5]	750	°C	IEC 60695-2-13
INJECTION MOLDING [6] [7]			
Drying Temperature	100 – 120	°C	
Drying Time	2 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	280 – 300	°C	
Nozzle Temperature	280 – 300	°C	
Front - Zone 3 Temperature	290 – 310	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	250 – 270	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	80 – 120	°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) Multiaxial Impact tested at 23°C
(3) 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.
(4) 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.
(5) Glow wire tested internally at SABIC
(6) For detailed processing conditions please contact the SABIC representative.
(7) 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.

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