NORYL™ RESIN PX1630

REGION EUROPE

DESCRIPTION

NORYL PX1630 Polyphenylene Oxide (PPO) + Polystyrene (PS) resin is a 30 % Glass Reinforced, injection moldable grade with improved hydrolytic stability; this grade has been developed for water management applications. NORYL PX1630 has been certified for potable water applications up to 85C in Europe and North America in limited colours.

TYPICAL PROPERTY VALUES

Revision 20190828

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
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	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			
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
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			
Specific Gravity	1.29	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.1 – 0.3	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.2 – 0.5	%	SABIC method
Water Absorption, (23°C/sat)	0.2	%	ISO 62
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

© 2019 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
ELECTRICAL			
Volume Resistivity	1.E+15	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	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
FLAME CHARACTERISTICS (2) (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	3	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 3.0 mm	750	°C	IEC 60695-2-13
INJECTION MOLDING (4)			
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) Multiaxial Impact tested at 23°C

(2) 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.

(3) Glow wire tested internally at SABIC

(4) For detailed processing conditions please contact the SABIC representative.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2019 Copyright by SABIC. All rights reserved