NORYL™ RESIN WM330G

REGION EUROPE

DESCRIPTION

NORYL™ WM330G resin is a 30% glass reinforced blend of impact modified polyphenylene ether (PPE) + polystyrene (PS). This injection moldable material is FC EU, FDA food contact compliant, NSF/ANSI 61, ACS, WRAS, KTW, and W270 listing for global potable water use for specific colors is pending. NORYL™ WM330G resin exhibits good fatigue performance, excellent long-term hydrolytic stability, very low moisture absorption, heat / hot water resistance and is an excellent candidate for a variety of water management applications such as pump housings, impellers, shower/faucet, membrane housings and valves.

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management

TYPICAL PROPERTY VALUES

Revision 20191009

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	131	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3.0	%	ASTM D 638
Tensile Modulus, 5 mm/min	9425	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	7650	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	188	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min (1)	131	MPa	ISO 527
Tensile Strain, break, 5 mm/min (1)	2.4	%	ISO 527
Tensile Modulus, 1 mm/min (1)	9475	MPa	ISO 527
Flexural Stress, break, 2 mm/min	200	MPa	ISO 178
Flexural Modulus, 2 mm/min	8440	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	520	J/m	ASTM D 4812
Izod Impact, unnotched, -30°C	550	J/m	ASTM D 4812
Izod Impact, notched, 23°C	105	J/m	ASTM D 256
Izod Impact, notched, -30°C	85	J/m	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	42	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	45	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	12	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	9	kJ/m²	ISO 180/1A
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	45	kJ/m²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	50	kJ/m²	ISO 179/1eU
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	12	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	9	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate A/50	164	°C	ISO 306
Vicat Softening Temp, Rate B/50	154	°C	ISO 306
Vicat Softening Temp, Rate A/120	167	°C	ISO 306
Vicat Softening Temp, Rate B/120	156	°C	ISO 306

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	155	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	149	°C	ISO 75/Ae
HDT, 0.45 MPa, 3.2 mm, unannealed	153	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	147	°C	ASTM D 648
PHYSICAL			
Density	1.3	g/cm³	ISO 1183
Melt Volume Rate, MVR at 300°C/10.0 kg	26	cm³/10 min	ISO 1133
Melt Flow Rate, 300°C/10 kgf	30	g/10 min	ASTM D 1238
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E45329-104135685	-	-
UL Recognized, 94HB Flame Class Rating	≥1.5	mm	UL 94
Glow Wire Ignitability Temperature, 1.5 mm (3)	825	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm (3)	800	°C	IEC 60695-2-13
Glow Wire Flammability Index, 1.5 mm (3)	825	°C	IEC 60695-2-12
Glow Wire Flammability Index, 3.0 mm (3)	775	°C	IEC 60695-2-12
INJECTION MOLDING (4)			
Drying Temperature	100 – 120	°C	
Drying Time	2 – 4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	290 – 320	°C	
Nozzle Temperature	290 – 320	°C	
Front - Zone 3 Temperature	300 – 310	°C	
Middle - Zone 2 Temperature	280 – 300	°C	
Rear - Zone 1 Temperature	270 – 280	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	80 – 120	°C	

(1) Single-gated data for double gate property, please contact SABIC representative

(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) Value shown here is based on internal measurement.

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

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