NORYL™ Resin WM220A

REGION ASIA

DESCRIPTION

NORYL WM220A resin is a 20% glass fiber reinforced blend of polyphenylene ether (PPE) + Polystyrene (PS). This injection moldable grades exhibits excellent long term hydrolytic stability, very low water absorption, heat / hot water resistance and is an excellent candidate for a various water management applications such as pump housings, impellers and valves. See NORYL FE1520PW resin for NSF /ANSI 61 and global potable water compliant version.

GENERAL INFORMATION	
Features	Hydrolytic Stability, Low Warpage, Amorphous, Low Shrinkage, Low Moisture Absorption, Low Specific Gravity, 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	Water Management

TYPICAL PROPERTY VALUES

Revision 20241015

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	98	MPa	SABIC - Japan Method
Tensile Strain, break	8 – 10	%	SABIC - Japan Method
Flexural Stress	150.2	MPa	ASTM D790
Flexural Modulus	5640	MPa	ASTM D790
Hardness, Rockwell R	124	-	ASTM D785
IMPACT [1]			
Izod Impact, notched, 23°C	150	J/m	ASTM D256
THERMAL [1]			
HDT, 1.82 MPa, 6.4 mm, unannealed	141	°C	ASTM D648
CTE, -30°C to 30°C	0.000028 – 0.000045	1/°C	TMA
PHYSICAL [1]			
Specific Gravity	1.23	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.06	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm [2]	0.2 – 0.4	%	SABIC method
Melt Flow Rate, 300°C/5.0 kgf	9.4	g/10 min	ASTM D1238
ELECTRICAL [1]			
Surface Resistivity	1.E+16	Ω	ASTM D257

(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) 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.

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