

Technical Data Sheet

Revision Date: 2019-06-30

NO.WHPU_0001

Name: CLARNATE® A1227 Polycarbonate Resin

Version: 3.0

General Information

Features	•Low Viscosity	•Easy Release	• UV Stabilized
Uses	•General Purpose		
Appearance	•Clear/Transparent		
Forms	•Pellets		
Processing Method	•Injection Molding		

Typical Properties

Properties	Test Method	Test Condition	Unit	Typical Value
Physical				
Melt Mass-flow Rate	ASTM D1238	300°C/1.2Kg	g/10min	20
	ASTM D1238	300°C/1.2Kg	cm ³ /10min	19
Mold Shrinkage	ASTM D955	-	%	0.5-0.7
Water Absorption	ASTM D570	23°C,24h	%	0.2
Density	ASTM D792	-	g/cm ³	1.2
Mechanical				
Stress at Break	ASTM D638	50mm/min	Mpa	68
Tensile Modulus	ASTM D638	1mm/min	Mpa	2300
Yield Stress	ASTM D638	50mm/min	Mpa	65
Yield Strain	ASTM D638	50mm/min	%	6
Strain at Break	ASTM D638	50mm/min	%	120
Flexural Strength	ASTM D790	2mm/min	Mpa	97
Flexural Modulus	ASTM D790	2mm/min	Mpa	2300
Izod Notched Impact Strength	ASTM D256	23°C	KJ/m ²	65
Thermal				
Heat Distortion Temp.	ASTM D648	1.82MPa;3.2mm	°C	127
Vicat Softening Temp.	ASTM D1525	120°C/h;50N	°C	146
Optical				
Haze	ASTM D1003	3mm	%	<0.8
Light Transmittance	ASTM D1003	3mm	%	89
Refractive Index	ASTM D542	-	-	1.586
Flammability				
Flame Rating	UL 94	3mm	-	HB
		1.5mm	-	V2
Electrical				

Relative Permittivity	IEC 60250	100Hz	-	3.1
	IEC 60250	1MHz	-	3.0
Dissipation Factor	IEC 60250	100Hz	10^{-4}	5
	IEC 60250	1MHz	10^{-4}	90
Volume Resistivity	IEC 60093	-	$\Omega \cdot m$	10^{14}
Surface Resistivity	IEC 60093	-	Ω	10^{16}
Electric Strength	IEC 60243-1	1mm	KV/mm	34
Comparative Tracking Index	IEC 60112	Solution A	V	250

Processing Condition

Drying Temperature	$^{\circ}C$	120
Drying Time	h	5
Injection Temperature	$^{\circ}C$	270-290
Mold temperature	$^{\circ}C$	80
Injection Speed	mm/s	50

For more information about safety and environment, please refer to our MSDS or contact our customer service center.

Version information:

Date of first issue : May 31, 2016

Date of 1st revise: Apr. 22, 2017 Reason for revision: Change of company LOGO.

Date of 2nd revise: June. 30, 2019 Reason for revision: Change in the organizational structure of the BU.

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The information provided here is for reference only. The specification will be provided in the quality certificate or in the contract. It is the user's responsibility to test the material and its suitability for a process. We have no control over what another party does with the material and we cannot take any responsibility for another party's action. Nor will we be responsible for any indirect damages while using our products. The user is welcome to contact our customer and technical service center with questions on our products.