

LEXANT™ RESIN 3213R

REGION AMERICAS

DESCRIPTION

LEXANT™ 3213R resin is a 30% glass fiber filled, 22 MFR @300 C/ 5.0 kg polycarbonate. It contains mold release. Available in natural and opaque colors.

TYPICAL PROPERTY VALUES

Revision 20260323

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break, 5 mm/min	100	MPa	ISO 527
Tensile Strain, break	2	%	ISO 527
Tensile Modulus, 1 mm/min	9000	MPa	ISO 527
Flexural Stress, break, 2 mm/min	130	MPa	ISO 178
Flexural Modulus, 2 mm/min	7000	MPa	ISO 178
Tensile Stress, brk, Type I, 5 mm/min	99	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2	%	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	153	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	6610	MPa	ASTM D790
Hardness, Rockwell M	92	-	ASTM D785
Hardness, Rockwell R	120	-	ASTM D785
Taber Abrasion, CS-17, 1 kg	46	mg/1000cy	ASTM D1044
IMPACT			
Izod Impact, unnotched 80°10°3 +23°C	35	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80°10°3 -30°C	35	kJ/m²	ISO 180/1U
Izod Impact, notched 80°10°3 +23°C	7	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm	6	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm	5	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm	40	kJ/m²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm	40	kJ/m²	ISO 179/1eU
Izod Impact, unnotched, 23°C	1121	J/m	ASTM D4812
Izod Impact, notched, 23°C	137	J/m	ASTM D256
Tensile Impact Strength, Type S	67	kJ/m²	ASTM D1822
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	145	°C	ASTM D648
HDT, 1.8 MPa, 3.2mm, unannealed	143	°C	ASTM D648
Thermal Conductivity	.22	W/m·°C	ISO 8302
CTE, 23°C to 80°C, flow	2.5E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	147	°C	ISO 306
Vicat Softening Temp, Rate B/120	145	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120°10°4 sp=100mm	144	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120°10°4 sp=100mm	139	°C	ISO 75/Ae
Vicat Softening Temp, Rate B/50	165	°C	ASTM D1525
CTE, -40°C to 95°C, flow	2.16E-05	1/°C	ASTM E831
Specific Heat	1.13	J/g·°C	ASTM C351

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CHEMISTRY THAT MATTERS™



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Thermal Conductivity	0.22	W/m-°C	ASTM C177
PHYSICAL			
Water Absorption, (23°C/saturated)	.26	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	.11	%	ISO 62
Melt Volume Rate, MVR at 300°C/5.0 kg	17	cm³/10 min	ISO 1133
Density	1.44	g/cm³	ISO 1183
Specific Gravity	1.43	-	ASTM D792
Specific Volume	0.69	cm³/g	ASTM D792
Density	1.44	g/cm³	ASTM D792
Water Absorption, (23°C/24hrs)	0.14	%	ASTM D570
Water Absorption, (23°C/Saturated)	0.26	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm	0.1 – 0.3	%	SABIC method
Melt Flow Rate, 300°C/5.0 kgf	22	g/10 min	ASTM D1238
ELECTRICAL			
Volume Resistivity	>1.E+15	Ω.cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ω	IEC 60093
Dielectric Strength, in oil, 0.8 mm	33	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 3.2 mm	16	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 1.6 mm	25	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	3	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.001	-	IEC 60250
Dissipation Factor, 1 MHz	0.01	-	IEC 60250
Relative Permittivity, 50/60 Hz	3.1	-	IEC 60250
Volume Resistivity	>1.E+17	Ω.cm	ASTM D257
Dielectric Strength, in air, 3.2 mm	18.7	kV/mm	ASTM D149
Relative Permittivity, 50/60 Hz	3.35	-	ASTM D150
Relative Permittivity, 1 MHz	3.31	-	ASTM D150
Dissipation Factor, 50/60 Hz	0.0011	-	ASTM D150
Dissipation Factor, 1 MHz	0.007	-	ASTM D150
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	315 – 340	°C	
Nozzle Temperature	310 – 330	°C	
Front - Zone 3 Temperature	315 – 340	°C	
Middle - Zone 2 Temperature	305 – 325	°C	
Rear - Zone 1 Temperature	295 – 315	°C	
Mold Temperature	80 – 115	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.076	mm	



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