

LEXANT™ FR RESINS 915RU

REGION EUROPE

DESCRIPTION

LEXANT™ 915RU resin is a 18 MFR polycarbonate, MVR of 18. UV stabilized. Mold release. Non-chlorinated, non-brominated flame retardant, UL94 V0 rated, UL746C f1 rated. Available in opaque colors.

TYPICAL PROPERTY VALUES

Revision 20210507

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	63	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	62	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	90	%	ASTM D638
Tensile Modulus, 50 mm/min	2400	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	93	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2460	MPa	ASTM D790
Hardness, Rockwell M	70	-	ASTM D785
Hardness, Rockwell R	118	-	ASTM D785
Tensile Stress, yield, 50 mm/min	63	MPa	ISO 527
Tensile Stress, break, 50 mm/min	60	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	6	%	ISO 527
Tensile Strain, break, 50 mm/min	85	%	ISO 527
Tensile Modulus, 1 mm/min	2350	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	90	MPa	ISO 178
Flexural Modulus, 2 mm/min	2300	MPa	ISO 178
Ball Indentation Hardness, H358/30	95	MPa	ISO 2039-1
IMPACT			
Izod Impact, notched, 23°C	747	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	67	J	ASTM D3763
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, unnotched 80°10'3 +23°C	NB	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80°10'3 -30°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80°10'3 +23°C	65	kJ/m²	ISO 180/1A
Izod Impact, notched 80°10'3 -30°C	11	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80°10'3 sp=62mm	65	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80°10'3 sp=62mm	12	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80°10'3 sp=62mm	NB	kJ/m²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80°10'3 sp=62mm	NB	kJ/m²	ISO 179/1eU
THERMAL			
Vicat Softening Temp, Rate B/50	138	°C	ASTM D1525
HDT, 0.45 MPa, 3.2 mm, unannealed	132	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	123	°C	ASTM D648
CTE, -40°C to 40°C, flow	7.E-05	1/°C	ASTM E831

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, xflow	7.E-05	1/°C	ASTM E831
Specific Heat	1.25	J/g.°C	ASTM C351
Thermal Conductivity	0.2	W/m.°C	ASTM C177
Thermal Conductivity	0.2	W/m.°C	ISO 8302
CTE, 23°C to 80°C, flow	7.E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	7.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Ball Pressure Test, approximate maximum	135	°C	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	140	°C	ISO 306
Vicat Softening Temp, Rate B/120	141	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	122	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	134	°C	ISO 75/Bf
Relative Temp Index, Elec	130	°C	UL 746B
Relative Temp Index, Mech w/impact	120	°C	UL 746B
Relative Temp Index, Mech w/o impact	125	°C	UL 746B
PHYSICAL			
Specific Gravity	1.2	-	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.15	%	ASTM D570
Water Absorption, (23°C/24hrs)	0.15	%	ASTM D570
Water Absorption, (23°C/Saturated)	0.35	%	ASTM D570
Melt Flow Rate, 300°C/1.2 kgf	18	g/10 min	ASTM D1238
Mold Shrinkage on Tensile Bar, flow	0.5 – 0.7	%	SABIC method
Density	1.2	g/cm³	ISO 1183
Water Absorption, (23°C/saturated)	0.35	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 300°C/1.2 kg	18	cm³/10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	>1.E+15	Ω.cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ω	IEC 60093
Dielectric Strength, in oil, 3.2 mm	17	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	2.7	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.001	-	IEC 60250
Dissipation Factor, 1 MHz	0.01	-	IEC 60250
Comparative Tracking Index	225	V	IEC 60112
Relative Permittivity, 50/60 Hz	2.7	-	IEC 60250
FLAME CHARACTERISTICS			
UL Yellow Card Link	E45329-608350	-	-
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
UL Recognized, 94V-2 Flame Class Rating	0.8	mm	UL 94
Glow Wire Flammability Index 850°C, passes at	1	mm	IEC 60695-2-12
Glow Wire Flammability Index 960°C, passes at	1.6	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 0.8 mm	800	°C	IEC 60695-2-13
Oxygen Index (LOI)	35	%	ISO 4589
UV-light, water exposure/immersion	F1	-	UL 746C
INJECTION MOLDING			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Temperature	120	°C	
Drying Time	2 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	280 – 300	°C	
Nozzle Temperature	270 – 290	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	80 – 100	°C	

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