+135-3858-6433 (GuangDong)
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LEXAN™ COPOLYMER EXL9414TRC

REGION ASIA

DESCRIPTION

LEXAN EXL9414TRC resin grade is a 21% PCR(Post Consumer Recycle) contain halogen-free flame retardant polycarbonate featuring transparency, -40 degree C ductility and UL-94 V0 rating for injection molding applications. Excellent impact combined with good flow, all transparent colorability for aesthetics and thin wall flame retardant makes this product an excellent candidate for thin wall applications.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	55	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	56	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5.6	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	96	%	ASTM D 638
Tensile Modulus, 50 mm/min	2110	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	86	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2160	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	56	MPa	ISO 527
Tensile Stress, break, 50 mm/min	54	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5.4	%	ISO 527
Tensile Strain, break, 50 mm/min	95	%	ISO 527
Tensile Modulus, 1 mm/min	2170	MPa	ISO 527
IMPACT			
Izod Impact, notched, 23°C	785	J/m	ASTM D 256
Izod Impact, notched, -30°C	311	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	65	J	ASTM D 3763
Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*3 -30°C	N	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*3 +23°C	58	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*3 -30°C	34	kJ/m²	ISO 180/1A
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	N	kJ/m²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm	N	kJ/m²	ISO 179/1eU
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	64	kJ/m²	ISO 179/1eA

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	24	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate A/50	135	°C	ASTM D 1525
Vicat Softening Temp, Rate B/50	129	°C	ISO 306
HDT, 1.82 MPa, 3.2mm, unannealed	110	°C	ASTM D 648
CTE, -40°C to 95°C, flow	6.70E-05	1/°C	ASTM E 831
CTE, -40°C to 95°C, xflow	8.00E-05	1/°C	ASTM E 831
PHYSICAL			
Specific Gravity	1.19	-	ASTM D 792
Density	1.19	g/cm³	ASTM D 792
Melt Flow Rate, 300°C/1.2 kgf	12	g/10 min	ASTM D 1238
Melt Volume Rate, MVR at 300°C/1.2 kg	11	cm³/10 min	ISO 1133
Mold Shrinkage, flow, 3.2 mm (5)	0.4 – 0.8	%	SABIC method
Water Absorption, (23°C/sat)	0.09	%	ISO 62
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	1.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	3 – 4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	295 – 315	°C	
Nozzle Temperature	290 – 310	°C	
Front - Zone 3 Temperature	295 – 315	°C	
Middle - Zone 2 Temperature	280 – 305	°C	
Rear - Zone 1 Temperature	270 – 295	°C	
Mold Temperature	70 – 95	°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	