

LNPT[™] COLORCOMPT[™] Compound FXM223R

DESCRIPTION

LNP COLORCOMP FXM223R compound is based on Polycarbonate (PC) resin. Added features of this grade include: UV Stabilized.

GENERAL INFORMATION	
Features	Aesthetics/Visual effects, Weatherable/UV stable
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

TYPICAL PROPERTY VALUES

Revision 20261021

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Modulus, 50 mm/min	2415	MPa	ASTM D638
Tensile Stress, yld, Type I, 50 mm/min	62	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	50	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	45	%	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	100	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2500	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	62	MPa	ISO 527
Tensile Stress, break, 50 mm/min	49	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	6	%	ISO 527
Tensile Strain, break, 50 mm/min	45	%	ISO 527
Tensile Modulus, 1 mm/min	2410	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	97	MPa	ISO 178
Flexural Modulus, 2 mm/min	2420	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched 80*10*3 +23°C	145	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*3 -30°C	145	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*3 +23°C	9	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*3 -30°C	8	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	9	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	8	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	128	kJ/m ²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm	125	kJ/m ²	ISO 179/1eU
Izod Impact, notched, 23°C	80	J/m	ASTM D256
Izod Impact, notched, -30°C	80	J/m	ASTM D256
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, unnotched, -30°C	NB	J/m	ASTM D4812
THERMAL ⁽¹⁾			
CTE, -40°C to 40°C, flow	7.E-05	1/°C	ISO 11359-2

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, xflow	7.E-05	1 / °C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate A/ 120	148	°C	ISO 306
Vicat Softening Temp, Rate B/ 120	141	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	135	°C	ISO 75 /Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	123	°C	ISO 75 /Ae
Vicat Softening Temp, Rate B/ 120	141	°C	ASTM D1525
HDT, 0.45 MPa, 6.4 mm, unannealed	134	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	122	°C	ASTM D648
PHYSICAL ⁽¹⁾			
Specific Gravity	1.2	-	ASTM D792
Density	1.21	g/cm ³	ASTM D1505
Melt Flow Rate, 300°C/ 1.2 kgf	17	g/ 10 min	ASTM D1238
Density	1.21	g/cm ³	ISO 1183
Water Absorption, (23°C/saturated)	0.1	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.05	%	ISO 62
Melt Volume Rate, MVR at 300°C/ 1.2 kg	16	cm ³ / 10 min	ISO 1133
INJECTION MOLDING ⁽²⁾			
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	

(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) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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