

LNPT[™] COLORCOMP[™] COMPOUND DX04401H

PDX-D-04401

DESCRIPTION

LNP COLORCOMP DX04401H compound is based on Polycarbonate (PC) resin. Added features of this grade include: Healthcare.

GENERAL INFORMATION	
Features	Aesthetics/Visual effects, Healthcare/Formula lock
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Industrial Packaging

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yield, 50 mm/min	62	MPa	ASTM D638
Tensile Stress, break, 50 mm/min	68	MPa	ASTM D638
Tensile Strain, yield, 50 mm/min	6	%	ASTM D638
Tensile Modulus, 50 mm/min	2210	MPa	ASTM D638
Hardness, Rockwell R	118	-	ASTM D785
Tensile Stress, yield	62	MPa	ISO 527
Tensile Stress, break	68	MPa	ISO 527
Tensile Strain, yield	6	%	ISO 527
Tensile Strain, break	150	%	ISO 527
Flexural Stress	98	MPa	ISO 178
Flexural Modulus, 2 mm/min	2400	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, notched, 23°C	750	J/m	ASTM D256
Izod Impact, notched 80*10*4 +23°C	75	kJ/m ²	ISO 180/1A
Charpy Impact, notched, 23°C	25	kJ/m ²	ISO 179/2C
Charpy Impact, notched, -30°C	12	kJ/m ²	ISO 179/2C
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	122	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	120	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Specific Gravity	1.2	-	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.15	%	ASTM D570

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.5 – 0.5	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.32	%	ISO 62
Melt Volume Rate, MVR at 300°C/1.2 kg	12	cm ³ /10 min	ISO 1133
OPTICAL ⁽¹⁾			
Refractive Index	1.586	-	ASTM D542
Refractive Index	1.586	-	ISO 489
ELECTRICAL ⁽¹⁾			
Volume Resistivity	2.E+17	Ω.cm	ASTM D257
Dielectric Constant, 1 MHz	3	-	ASTM D150
Dissipation Factor, 100 Hz	0.001	-	ASTM D150
Dissipation Factor, 1 MHz	0.002	-	ASTM D150
INJECTION MOLDING ⁽³⁾			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

- (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) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
- (3) 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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