LNP™ COLORCOMP™ COMPOUND DX09304C

DESCRIPTION

LNP COLORCOMP DX09304C is an unfilled polycarbonate (PC) resin. Added features of this grade include: easy molding, very low level of leachable ions and low outgassing.

GENERAL INFORMATION	
Features	Good Processability, Low ionics/Outgassing/Liquid particle count, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components, Mobile Phone - Computer - Tablets
Industrial	Electrical, Material Handling

TYPICAL PROPERTY VALUES

Revision 20241024

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Flexural Stress, yld, 1.3 mm/min, 50 mm span	94	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2210	MPa	ASTM D790
Flexural Strength, 2 mm/min	92.4	MPa	ISO 178
Flexural Modulus, 2 mm/min	2200	MPa	ISO 178
Tensile Stress, yld, Type I, 50 mm/min	60.4	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	59.1	MPa	ASTM D638
Tensile Modulus, 50 mm/min	2283	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	0.22	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	78.6	%	ASTM D638
Tensile Stress, yield, 50 mm/min	59.4	MPa	ISO 527
Tensile Stress, break, 50 mm/min	60.5	MPa	ISO 527
Tensile Modulus, 1 mm/min	2300	MPa	ISO 527
Tensile Strain, break, 50 mm/min	106	%	ISO 527
IMPACT [1]			
Izod Impact, notched, 23°C	790	J/m	ASTM D256
Izod Impact, unnotched, 23°C	2117	J/m	ASTM D4812
Izod Impact, notched, -30°C	108	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	139	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	46.5	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	11.1	kJ/m²	ISO 180/1A
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	100.8	kJ/m²	ISO 179/1eU
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	63.3	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	11.7	kJ/m²	ISO 179/1eA

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	142	°C	ASTM D648
Vicat Softening Temp, Rate A/120	149	°C	ISO 306
CTE, 23°C to 80°C, flow	8.0E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	8.0E-05	1/°C	ISO 11359-2
PHYSICAL			
Specific Gravity [1]	1.195	-	ASTM D792
Water Absorption, (23°C/saturated) [1]	0.05	%	ISO 62-1
Melt Flow Rate, 300°C/1.2 kgf [1]	22	g/10 min	ASTM D1238
Mold Shrinkage, flow [2]	0.66	%	SABIC method
Mold Shrinkage, xflow [2]	0.69	%	SABIC method
INJECTION MOLDING [3]			
Drying Temperature	100	°C	
Drying Time	3 – 5	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	260 – 300	°C	
Nozzle Temperature	260 – 300	°C	
Front - Zone 3 Temperature	260 – 300	°C	
Middle - Zone 2 Temperature	260 – 300	°C	
Rear - Zone 1 Temperature	240 – 260	°C	
Mold Temperature	80 – 120	°C	
Back Pressure	0.1 – 0.5	MPa	
Screw Speed	30 – 100	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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