LNP™ ELCRES™ DMX1234

DESCRIPTION

LNP ELCRES DMX1234 is a UV stabilized standard flow Polycarbonate (PC) copolymer resin. Available in both transparent and custom colours, this grade is a good candidate for 5G related devices. Added features of this grade include: Improved Scratch Resistance and Improved Dielectric Performance (lower Df).

GENERAL INFORMATION	
Features	Good Processability, Dielectrics, Amorphous, IR Transparent, Transparent/Translucent, Weatherable/UV stable, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Interiors
Consumer	Personal Accessory
Electrical and Electronics	Electronic Components
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20260403

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 50 mm/min	58	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	27.6	%	ASTM D638
Tensile Modulus, 50 mm/min	2550	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	113	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2440	MPa	ASTM D790
Tensile Stress, break, 50 mm/min	58	MPa	ISO 527
Tensile Strain, break, 50 mm/min	37.4	%	ISO 527
Tensile Modulus, 1 mm/min	2410	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	104	MPa	ISO 178
Flexural Modulus, 2 mm/min	2440	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, notched, 23°C	32	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3.8	kJ/m²	ISO 180/1A
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	95	kJ/m²	ISO 179/1eU
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	2.9	kJ/m²	ISO 179/1eA
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	130	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	115	°C	ASTM D648

© 2026 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	132	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	118.5	°C	ISO 75/Af
Vicat Softening Temp, Rate A/50	146	°C	ASTM D1525
Vicat Softening Temp, Rate B/50	140	°C	ISO 306
CTE, 23°C to 80°C, flow	7.4E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	7.8E-05	1/°C	ISO 11359-2
Relative Temp Index, Elec [2]	80	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	80	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	80	°C	UL 746B
PHYSICAL [1]			
Specific Gravity	1.18	-	ASTM D792
Mold Shrinkage, flow [3]	0.76	%	SABIC method
Mold Shrinkage, xflow [3]	0.81	%	SABIC method
Melt Flow Rate			
300°C/1.2 kgf	15	g/10 min	ASTM D1238
Moisture Absorption, (23°C/50% RH/24hrs)	0.03	%	ISO 62-4
OPTICAL [1]			
Light Transmission, 1.0 mm	91.5	%	ASTM D1003
Light Transmission at 2.0 mm	90.9	%	ASTM D1003
Haze, 1.0 mm	0.6	%	ASTM D1003
Haze, 2mm	1	%	SABIC method
ELECTRICAL [1]			
Dielectric Constant			
1.1 GHz	2.73	-	SABIC method
1.9 GHz	2.72	-	SABIC method
5 GHz	2.74	-	SABIC method
10 GHz	2.75	-	SABIC method
20 GHz	2.67	-	SABIC method
Dissipation Factor			
1.1 GHz	0.00295	-	SABIC method
1.9 GHz	0.00272	-	SABIC method
5 GHz	0.00238	-	SABIC method
10 GHz	0.00266	-	SABIC method
20 GHz	0.00253	-	SABIC method
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E207780-104421498	-	-
UL Recognized, 94HB Flame Class Rating	≥0.6	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	110	°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	

© 2026 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Rear - Zone 1 Temperature	260 – 280	°C	
Mold Temperature	70 – 90	°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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(3) 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.

(4) 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.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2026 Copyright by SABIC. All rights reserved