

LNPTM STAT-KONTM Compound DX24355H

REGION EUROPE

DESCRIPTION

LNP STAT-KON DX24355H compound is based on Polycarbonate copolymer resin that has been designed towards injection moulding of electrically conductive components for the medical devices industry. Added features of this grade include: Electrically Conductive, Good Processability and Structural.

GENERAL INFORMATION	
Features	Structural, Electrically Conductive, Good Processability, Healthcare
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding
INDUSTRY	SUB INDUSTRY
Hygiene and Healthcare	General Healthcare, Patient Testing

TYPICAL PROPERTY VALUES

Revision 20260930

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, brk, Type I, 5 mm/min	100	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	0.5	%	ASTM D638
Tensile Modulus, 5 mm/min	28000	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	160	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	22700	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	115	MPa	ISO 527
Tensile Strain, break, 5 mm/min	0.5	%	ISO 527
Tensile Modulus, 1 mm/min	27700	MPa	ISO 527
Flexural Strength, 2 mm/min	170	MPa	ISO 178
Flexural Modulus, 2 mm/min	25000	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	190	J/m	ASTM D4812
Izod Impact, notched, 23°C	55	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	14	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m ²	ISO 180/1A
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	15	kJ/m ²	ISO 179/1eU
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	6	kJ/m ²	ISO 179/1eA
THERMAL ⁽¹⁾			
CTE, -40°C to 40°C, flow	6.5E-06	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	4.7E-05	1/°C	ASTM E831
HDT, 1.82 MPa, 3.2mm, unannealed	129	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	139	°C	ASTM D648
Vicat Softening Temp, Rate B/50	137	°C	ASTM D1525

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/120	140	°C	ASTM D1525
CTE, -40°C to 40°C, flow	6.5E-06	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.7E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	130	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	140	°C	ISO 75/Bf
Vicat Softening Temp, Rate B/50	137	°C	ISO 306
Vicat Softening Temp, Rate B/120	140	°C	ISO 306
PHYSICAL ⁽¹⁾			
Melt Volume Rate, MVR at 300°C/5.0 kg	13	cm ³ /10 min	ISO 1133
Density	1.46	g/cm ³	ISO 1183
Mold Shrinkage, flow ⁽²⁾	0.05 – 0.15	%	SABIC method
Mold Shrinkage, xflow ⁽²⁾	0.05 – 0.15	%	SABIC method
Water Absorption, (23°C/saturated)	0.07	%	ISO 62-1
Water Absorption, (23°C/24hrs)	0.16	%	ISO 62-1
Moisture Absorption, (23°C/50% RH/24hrs)	0.02	%	ISO 62-4
Moisture Absorption, (23°C/50% RH/Equilibrium)	0.04	%	ISO 62-4
Melt Flow Rate, 300°C/5.0 kgf	18	g/10 min	ASTM D1238
Specific Gravity	1.46	-	ASTM D792
ELECTRICAL PROPERTIES ⁽¹⁾			
Volume resistivity	E-01 - E+00	Ω.cm	SABIC method
INJECTION MOLDING ⁽³⁾			
Drying Temperature	110 – 120	°C	
Drying Time	2 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.2	%	
Melt Temperature	300 – 330	°C	
Rear - Zone 1 Temperature	280 – 310	°C	
Middle - Zone 2 Temperature	290 – 320	°C	
Front - Zone 3 Temperature	300 – 330	°C	
Nozzle Temperature	300 – 330	°C	
Mold Temperature	80 – 120	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw speed (Circumferential speed)	0.15 – 0.2	m/s	

- (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.

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 NON-INFRINGEMENT 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.