

# LNPT<sup>TM</sup> STAT-KON<sup>TM</sup> COMPOUND DX13320C

## DESCRIPTION

LNP STAT-KON DX13320C compound is based on Polycarbonate (PC) resin containing 20% carbon fiber. Added features of this grade include: LNP Clean Compounding Technology, Low LPC, Low Ionics, Low Outgassing, Low C18-C40 Hydrocarbons, Electrically Conductive.

### GENERAL INFORMATION

|                       |                                                                                                                                                 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Features              | Electrically Conductive, Low ionics/Outgassing/Liquid particle count, Carbon fiber filled, High stiffness/Strength, No PFAS intentionally added |
| Fillers               | Carbon Fiber                                                                                                                                    |
| Polymer Types         | Polycarbonate (PC)                                                                                                                              |
| Processing Techniques | Injection Molding                                                                                                                               |

### INDUSTRY

Electrical and Electronics

### SUB INDUSTRY

Mobile Phone - Computer - Tablets

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES                                          | TYPICAL VALUES | UNITS             | TEST METHODS |
|-----------------------------------------------------|----------------|-------------------|--------------|
| <b>MECHANICAL <sup>(1)</sup></b>                    |                |                   |              |
| Tensile Stress, brk, Type I, 5 mm/min               | 152            | MPa               | ASTM D638    |
| Tensile Strain, brk, Type I, 5 mm/min               | 2              | %                 | ASTM D638    |
| Tensile Modulus, 5 mm/min                           | 15170          | MPa               | ASTM D638    |
| Flexural Stress                                     | 209            | MPa               | ASTM D790    |
| Flexural Modulus                                    | 11500          | MPa               | ASTM D790    |
| Tensile Stress, break, 5 mm/min                     | 150            | MPa               | ISO 527      |
| Tensile Strain, break, 5 mm/min                     | 1.9            | %                 | ISO 527      |
| Tensile Modulus, 1 mm/min                           | 14590          | MPa               | ISO 527      |
| Flexural Stress, yield, 2 mm/min                    | 187            | MPa               | ISO 178      |
| Flexural Modulus, 2 mm/min                          | 11600          | MPa               | ISO 178      |
| <b>IMPACT <sup>(1)</sup></b>                        |                |                   |              |
| Charpy Impact, unnotched, 23°C                      | 28             | kJ/m <sup>2</sup> | ISO 179/2C   |
| Izod Impact, unnotched, 23°C                        | 410            | J/m               | ASTM D4812   |
| Izod Impact, notched, 23°C                          | 70             | J/m               | ASTM D256    |
| Charpy Impact, notched, 23°C                        | 7              | kJ/m <sup>2</sup> | ISO 179/2C   |
| <b>THERMAL <sup>(1)</sup></b>                       |                |                   |              |
| HDT, 1.82 MPa, 3.2mm, unannealed                    | 117            | °C                | ASTM D648    |
| CTE, -40°C to 40°C, flow                            | 9.2E-06        | 1/°C              | ASTM E831    |
| CTE, -40°C to 40°C, xflow                           | 7.97E-05       | 1/°C              | ASTM E831    |
| Relative Temp Index, Elec <sup>(2)</sup>            | 80             | °C                | UL 746B      |
| Relative Temp Index, Mech w/impact <sup>(2)</sup>   | 80             | °C                | UL 746B      |
| Relative Temp Index, Mech w/o impact <sup>(2)</sup> | 80             | °C                | UL 746B      |
| <b>PHYSICAL <sup>(1)</sup></b>                      |                |                   |              |



| PROPERTIES                                   | TYPICAL VALUES                    | UNITS                   | TEST METHODS |
|----------------------------------------------|-----------------------------------|-------------------------|--------------|
| Specific Gravity                             | 1.26                              | -                       | ASTM D792    |
| Mold Shrinkage, flow, 3.2 mm <sup>(3)</sup>  | 0.1 – 0.2                         | %                       | SABIC method |
| Mold Shrinkage, xflow, 3.2 mm <sup>(3)</sup> | 0.2 – 0.4                         | %                       | SABIC method |
| Melt Volume Rate, MVR at 300°C/5.0 kg        | 34                                | cm <sup>3</sup> /10 min | ISO 1133     |
| <b>ELECTRICAL <sup>(1)</sup></b>             |                                   |                         |              |
| Volume Resistivity <sup>(4)</sup>            | 5.E+03 – 5.E+05                   | Ω.cm                    | ASTM D257    |
| Surface Resistivity <sup>(4)</sup>           | 5.E+03 – 5.E+05                   | Ω                       | ASTM D257    |
| <b>FLAME CHARACTERISTICS <sup>(2)</sup></b>  |                                   |                         |              |
| UL Yellow Card Link                          | <a href="#">E207780-101977560</a> | -                       | -            |
| UL Recognized, 94HB Flame Class Rating       | ≥1                                | mm                      | UL 94        |
| <b>INJECTION MOLDING <sup>(5)</sup></b>      |                                   |                         |              |
| Drying Temperature                           | 90 – 110                          | °C                      |              |
| Drying Time                                  | 3 – 5                             | Hrs                     |              |
| Melt Temperature                             | 280 – 320                         | °C                      |              |
| Nozzle Temperature                           | 280 – 320                         | °C                      |              |
| Front - Zone 3 Temperature                   | 280 – 320                         | °C                      |              |
| Middle - Zone 2 Temperature                  | 280 – 320                         | °C                      |              |
| Rear - Zone 1 Temperature                    | 250 – 280                         | °C                      |              |
| Mold Temperature                             | 90 – 120                          | °C                      |              |
| Back Pressure                                | 1 – 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) 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) Measurement meets requirements as specified in ASTM D4496.

(5) 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.

## MORE INFORMATION

For curve data and CAE cards, please visit and register at <https://materialfinder.sabic-specialties.com>

## ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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