

# LNPT<sup>™</sup> COLORCOMPT<sup>™</sup> COMPOUND G1000LX1

## DESCRIPTION

LNPT COLORCOMP G1000LX1 compound is based on unfilled Polysulfone (PSU) resin. Added features of this grade include: Low Extractables.

### GENERAL INFORMATION

|                       |                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------|
| Features              | Aesthetics/Visual effects, Food contact, High temperature resistance, No PFAS intentionally added |
| Fillers               | Unreinforced                                                                                      |
| Polymer Types         | Polysulfone (PSU)                                                                                 |
| Processing Techniques | Injection Molding                                                                                 |

### INDUSTRY

Building and Construction  
Consumer  
Packaging

### SUB INDUSTRY

Water Management  
Home Appliances  
Industrial Packaging, Food & Beverage

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES                                 | TYPICAL VALUES | UNITS             | TEST METHODS |
|--------------------------------------------|----------------|-------------------|--------------|
| <strong>MECHANICAL <sup>(1)</sup></strong> |                |                   |              |
| Tensile Stress, yield, 50 mm/min           | 75             | MPa               | ISO 527      |
| Tensile Stress, break, 50 mm/min           | 60             | MPa               | ISO 527      |
| Tensile Strain, yield, 50 mm/min           | 6              | %                 | ISO 527      |
| Tensile Strain, break, 50 mm/min           | 65             | %                 | ISO 527      |
| Tensile Modulus, 1 mm/min                  | 2550           | MPa               | ISO 527      |
| Flexural Strength, 2 mm/min                | 115            | MPa               | ISO 178      |
| Flexural Modulus, 2 mm/min                 | 2500           | MPa               | ISO 178      |
| Tensile Stress, yld, Type I, 50 mm/min     | 70             | MPa               | ASTM D638    |
| Tensile Stress, brk, Type I, 50 mm/min     | 65             | MPa               | ASTM D638    |
| Tensile Strain, yld, Type I, 50 mm/min     | 5              | %                 | ASTM D638    |
| Tensile Strain, brk, Type I, 50 mm/min     | 100            | %                 | ASTM D638    |
| Tensile Modulus, 5 mm/min                  | 2600           | MPa               | ASTM D638    |
| Flexural Strength, 1.3 mm/min, 50 mm span  | 115            | MPa               | ASTM D790    |
| Flexural Modulus, 1.3 mm/min, 50 mm span   | 2560           | MPa               | ASTM D790    |
| <strong>IMPACT <sup>(1)</sup></strong>     |                |                   |              |
| Izod Impact, unnotched 80*10*4 +23°C       | 137            | kJ/m <sup>2</sup> | ISO 180/1U   |
| Izod Impact, notched 80*10*4 +23°C         | 9              | kJ/m <sup>2</sup> | ISO 180/1A   |
| Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm | 100            | kJ/m <sup>2</sup> | ISO 179/1eU  |
| Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm | 5              | kJ/m <sup>2</sup> | ISO 179/1eA  |
| Izod Impact, unnotched, 23°C               | 1700           | J/m               | ASTM D4812   |
| Izod Impact, notched, 23°C                 | 50             | J/m               | ASTM D256    |
| <strong>THERMAL <sup>(1)</sup></strong>    |                |                   |              |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm     | 180            | °C                | ISO 75/Bf    |

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CHEMISTRY THAT MATTERS<sup>™</sup>

| PROPERTIES                                     | TYPICAL VALUES | UNITS                   | TEST METHODS |
|------------------------------------------------|----------------|-------------------------|--------------|
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm          | 170            | °C                      | ISO 75 /Af   |
| Vicat Softening Temp, Rate B/50                | 185            | °C                      | ISO 306      |
| Vicat Softening Temp, Rate B/120               | 185            | °C                      | ISO 306      |
| CTE, 23°C to 60°C, flow                        | 6.3E-05        | 1/°C                    | ISO 11359-2  |
| CTE, 23°C to 60°C, xflow                       | 6.5E-05        | 1/°C                    | ISO 11359-2  |
| HDT, 0.45 MPa, 3.2 mm, unannealed              | 180            | °C                      | ASTM D648    |
| HDT, 1.82 MPa, 3.2mm, unannealed               | 170            | °C                      | ASTM D648    |
| <b>PHYSICAL <sup>(1)</sup></b>                 |                |                         |              |
| Density                                        | 1.24           | g/cm <sup>3</sup>       | ISO 1183     |
| Mold Shrinkage, flow <sup>(2)</sup>            | 0.7            | %                       | SABIC method |
| Mold Shrinkage, xflow <sup>(2)</sup>           | 0.7            | %                       | SABIC method |
| Moisture Absorption, (23°C/50% RH/24hrs)       | 0.1            | %                       | ISO 62-4     |
| Moisture Absorption, (23°C/50% RH/Equilibrium) | 0.3            | %                       | ISO 62-4     |
| Melt Volume Rate, MVR at 345°C/2.16 kg         | 7.8            | cm <sup>3</sup> /10 min | ISO 1133     |
| <b>INJECTION MOLDING <sup>(3)</sup></b>        |                |                         |              |
| Drying Temperature                             | 120 – 150      | °C                      |              |
| Drying Time                                    | 4              | Hrs                     |              |
| Maximum Moisture Content                       | 0.05           | %                       |              |
| Melt Temperature                               | 360 – 370      | °C                      |              |
| Front - Zone 3 Temperature                     | 350 – 360      | °C                      |              |
| Middle - Zone 2 Temperature                    | 340 – 350      | °C                      |              |
| Rear - Zone 1 Temperature                      | 325 – 340      | °C                      |              |
| Mold Temperature                               | 150            | °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.

## 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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