

# LNPT<sup>™</sup> COLORCOMPT<sup>™</sup> COMPOUND NX05467

## DESCRIPTION

LNP COLORCOMP NX05467 compound is based on Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) blend. Added features of this grade is: Non-Chlorinated, Non-Brominated Flame Retardant with UL V0, 5VB and 5VA flame rating.

### GENERAL INFORMATION

|                       |                                                                       |
|-----------------------|-----------------------------------------------------------------------|
| Features              | Flame Retardant, Aesthetics/Visual effects, Non Cl/Br flame retardant |
| Fillers               | Unreinforced                                                          |
| Polymer Types         | Polycarbonate + ABS (PC+ABS)                                          |
| Processing Techniques | Injection Molding                                                     |

### INDUSTRY

Automotive  
Consumer  
Electrical and Electronics

### SUB INDUSTRY

Automotive Interiors  
Home Decoration, Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance  
Mobile Phone - Computer - Tablets

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES                                          | TYPICAL VALUES | UNITS    | TEST METHODS |
|-----------------------------------------------------|----------------|----------|--------------|
| <b>MECHANICAL <sup>(1)</sup></b>                    |                |          |              |
| Tensile Stress, yield                               | 66             | MPa      | ASTM D638    |
| Tensile Strain, break                               | 50             | %        | ASTM D638    |
| Flexural Stress                                     | 103            | MPa      | ASTM D790    |
| Flexural Modulus                                    | 2680           | MPa      | ASTM D790    |
| <b>THERMAL <sup>(1)</sup></b>                       |                |          |              |
| HDT, 1.82 MPa, 3.2mm, unannealed                    | 87 – 91        | °C       | ASTM D648    |
| Relative Temp Index, Elec <sup>(2)</sup>            | 85             | °C       | UL 746B      |
| Relative Temp Index, Mech w/impact <sup>(2)</sup>   | 85             | °C       | UL 746B      |
| Relative Temp Index, Mech w/o impact <sup>(2)</sup> | 85             | °C       | UL 746B      |
| <b>PHYSICAL <sup>(1)</sup></b>                      |                |          |              |
| Specific Gravity                                    | 1.18           | -        | ASTM D792    |
| Melt Flow Rate, 260°C/2.16 kgf                      | 17             | g/10 min | ASTM D1238   |
| Mold Shrinkage, flow <sup>(3)</sup>                 | 0.4 – 0.6      | %        | SABIC method |
| Mold Shrinkage, xflow <sup>(3)</sup>                | 0.4 – 0.6      | %        | SABIC method |
| <b>ELECTRICAL <sup>(1)</sup></b>                    |                |          |              |
| Volume Resistivity                                  | 1.E+15         | Ω.cm     | ASTM D257    |
| Surface Resistivity                                 | 1.E+15         | Ω        | ASTM D257    |
| Dielectric Strength, in oil, 0.8 mm                 | 890            | kV/mm    | IEC 60243-1  |
| Dielectric Strength, in oil, 1.6 mm                 | 640            | kV/mm    | IEC 60243-1  |
| Dielectric Strength, in oil, 3.2 mm                 | 430            | kV/mm    | IEC 60243-1  |
| Relative Permittivity, 60 Hz                        | 2.8            | -        | IEC 60250    |
| Relative Permittivity, 1 MHz                        | 2.7            | -        | IEC 60250    |

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| PROPERTIES                                  | TYPICAL VALUES                    | UNITS    | TEST METHODS |
|---------------------------------------------|-----------------------------------|----------|--------------|
| Dissipation Factor, 50/60 Hz                | 0.004                             | -        | IEC 60250    |
| Dissipation Factor, 1 MHz                   | 0.008                             | -        | IEC 60250    |
| Comparative Tracking Index (UL) {PLC}       | 2                                 | PLC Code | UL 746A      |
| High Amp Arc Ignition (HAI), PLC 0          | ≥1.5                              | mm       | UL 746A      |
| Hot-Wire Ignition (HWI), PLC 2              | ≥3                                | mm       | UL 746A      |
| Hot-Wire Ignition (HWI), PLC 3              | ≥1.5                              | mm       | UL 746A      |
| High Voltage Arc Track Rate {PLC}           | 2                                 | PLC Code | UL 746A      |
| Arc Resistance, Tungsten {PLC}              | 6                                 | PLC Code | ASTM D495    |
| <b>FLAME CHARACTERISTICS <sup>(2)</sup></b> |                                   |          |              |
| UL Yellow Card Link                         | <a href="#">E121562-104340779</a> | -        | -            |
| UL Recognized, 94HB Flame Class Rating      | ≥0.7                              | mm       | UL 94        |
| UL Recognized, 94V-1 Flame Class Rating     | ≥1.2                              | mm       | UL 94        |
| UL Recognized, 94V-0 Flame Class Rating     | ≥1.5                              | mm       | UL 94        |
| UL Recognized, 94-5VB Flame Class Rating    | ≥2.0                              | mm       | UL 94        |
| UL Recognized, 94-5VA Flame Class Rating    | ≥3.4                              | mm       | UL 94        |
| <b>INJECTION MOLDING <sup>(4)</sup></b>     |                                   |          |              |
| Drying Temperature                          | 80 – 90                           | °C       |              |
| Drying Time                                 | 3 – 4                             | Hrs      |              |
| Drying Time (Cumulative)                    | 8                                 | Hrs      |              |
| Maximum Moisture Content                    | 0.04                              | %        |              |
| Melt Temperature                            | 245 – 275                         | °C       |              |
| Nozzle Temperature                          | 245 – 275                         | °C       |              |
| Front - Zone 3 Temperature                  | 245 – 275                         | °C       |              |
| Middle - Zone 2 Temperature                 | 220 – 265                         | °C       |              |
| Rear - Zone 1 Temperature                   | 220 – 255                         | °C       |              |
| Mold Temperature                            | 60 – 80                           | °C       |              |
| Back Pressure                               | 0.3 – 0.7                         | MPa      |              |
| Screw Speed                                 | 40 – 70                           | rpm      |              |
| Shot to Cylinder Size                       | 30 – 80                           | %        |              |
| Vent Depth                                  | 0.038 – 0.076                     | mm       |              |

(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.

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