



## LNP™ COLORCOMP™ Compound HF1110C

### Americas: COMMERCIAL

COLORCOMP\* HF1110C is a general purpose Polycarbonate resin. Added features include: Good Clarity, Heat Resistant, Property Retention and Dimensional Stability.

| TYPICAL PROPERTIES <sup>1</sup>              | TYPICAL VALUE | Unit                   | Standard     |
|----------------------------------------------|---------------|------------------------|--------------|
| <b>MECHANICAL</b>                            |               |                        |              |
| Tensile Stress, yld, Type I, 50 mm/min       | 630           | kgf/cm <sup>2</sup>    | ASTM D 638   |
| Tensile Stress, brk, Type I, 50 mm/min       | 660           | kgf/cm <sup>2</sup>    | ASTM D 638   |
| Tensile Strain, brk, Type I, 50 mm/min       | 120           | %                      | ASTM D 638   |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 940           | kgf/cm <sup>2</sup>    | ASTM D 790   |
| Flexural Modulus, 1.3 mm/min, 50 mm span     | 23500         | kgf/cm <sup>2</sup>    | ASTM D 790   |
| <b>IMPACT</b>                                |               |                        |              |
| Izod Impact, notched, 23°C                   | 65            | cm-kgf/cm              | ASTM D 256   |
| Tensile Impact, Type S                       | 385           | cm-kgf/cm <sup>2</sup> | ASTM D 1822  |
| Instrumented Impact Energy @ peak, 23°C      | 553           | cm-kgf                 | ASTM D 3763  |
| <b>THERMAL</b>                               |               |                        |              |
| HDT, 1.82 MPa, 3.2mm, unannealed             | 126           | °C                     | ASTM D 648   |
| Relative Temp Index, Elec                    | 130           | °C                     | UL 746B      |
| Relative Temp Index, Mech w/impact           | 130           | °C                     | UL 746B      |
| Relative Temp Index, Mech w/o impact         | 130           | °C                     | UL 746B      |
| <b>PHYSICAL</b>                              |               |                        |              |
| Specific Gravity                             | 1.2           | -                      | ASTM D 792   |
| Water Absorption, 24 hours                   | 0.1           | %                      | ASTM D 570   |
| Water Absorption, equilibrium, 23C           | 0.35          | %                      | ASTM D 570   |
| Water Absorption, equilibrium, 100°C         | 0.58          | %                      | ASTM D 570   |
| Mold Shrinkage, flow, 3.2 mm (5)             | 0.5 - 0.7     | %                      | SABIC Method |
| Melt Flow Rate, 300°C/1.2 kgf                | 25            | g/10 min               | ASTM D 1238  |
| <b>OPTICAL</b>                               |               |                        |              |
| Light Transmission, 2.54 mm                  | 88            | %                      | ASTM D 1003  |
| Haze, 2.54 mm                                | 1             | %                      | ASTM D 1003  |
| <b>ELECTRICAL</b>                            |               |                        |              |
| Hot Wire Ignition (PLC)                      | 2             | PLC Code               | UL 746A      |



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|---------------------------------------------|---------------|----------|----------|
| <b>ELECTRICAL</b>                           |               |          |          |
| High Voltage Arc Track Rate {PLC}           | 2             | PLC Code | UL 746A  |
| High Ampere Arc Ign, surface {PLC}          | 1             | PLC Code | UL 746A  |
| Comparative Tracking Index (UL) {PLC}       | 2             | PLC Code | UL 746A  |
| <b>FLAME CHARACTERISTICS</b>                |               |          |          |
| UL Recognized, 94V-2 Flame Class Rating (3) | 1.09          | mm       | UL 94    |



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| PROCESSING PARAMETERS       | TYPICAL VALUE | Unit |
|-----------------------------|---------------|------|
| <b>Injection Molding</b>    |               |      |
| Drying Temperature          | 120           | °C   |
| Drying Time                 | 3 - 4         | hrs  |
| Drying Time (Cumulative)    | 48            | hrs  |
| Maximum Moisture Content    | 0.02          | %    |
| Melt Temperature            | 270 - 295     | °C   |
| Nozzle Temperature          | 265 - 290     | °C   |
| Front - Zone 3 Temperature  | 270 - 295     | °C   |
| Middle - Zone 2 Temperature | 260 - 280     | °C   |
| Rear - Zone 1 Temperature   | 250 - 270     | °C   |
| Mold Temperature            | 70 - 95       | °C   |
| Back Pressure               | 0.3 - 0.7     | MPa  |
| Screw Speed                 | 40 - 70       | rpm  |
| Shot to Cylinder Size       | 40 - 60       | %    |
| Vent Depth                  | 0.025 - 0.076 | mm   |